

1961



FLORIDA STATE BOARD OF HEALTH

1961

ANNUAL REPORT

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Annual Report

State Board of Health

State of Florida

1961

The following reports will be published separately:

SUPPLEMENT I — FLORIDA VITAL STATISTICS, 1961

SUPPLEMENT II — FLORIDA MORBIDITY STATISTICS, 1961

WILSON T. SOWDER, M.D.

STATE HEALTH OFFICER

JACKSONVILLE, FLORIDA

The Honorable Eugene G. Peek, M.D., President
Florida State Board of Health
Ocala, Florida

Dear Dr. Peek:

I herewith submit the annual report of the Florida
State Board of Health for the year ending December 31,
1961.

Sincerely yours,

ALBERT V. HARDY, M.D., DR.P.H.
Acting State Health Officer

May 1, 1962
Jacksonville, Florida

His Excellency, Farris Bryant
Governor of Florida
Tallahassee, Florida

Sir:

I beg to hand you herewith a report of the Florida
State Board of Health for the period January 1, 1961, to
December 31, 1961, inclusive.

Respectfully submitted,

EUGENE G. PEEK, M.D.
President

May 1, 1962
Ocala, Florida

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Ocala, Florida

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Members of the
FLORIDA STATE BOARD OF HEALTH

EUGENE G. PEEK, M.D., *President*
Ocala

T. M. CUMBIE, Ph.G., *Vice President*
Quincy

ASHBEL C. WILLIAMS, M.D.
Jacksonville

F. P. MEYER, D.D.S.
St. Petersburg

W. S. HORN, D.O.
Palmetto

OFFICIAL STAFF FLORIDA STATE BOARD OF HEALTH

December 31, 1961

DIRECTORS

State Health Officer (on leave).....	Wilson T. Sowder, M.D., M.P.H.
Assistant State Health Officer.....	Albert V. Hardy, M.D., Dr.P.H.
(Acting State Health Officer)	
Assistant State Health Officer.....	Clarence M. Sharp, M.D.
(Acting Director of Bureau of Preventable Diseases)	
Assistant State Health Officer.....	William L. Wright, M.D., M.P.H.
Division of Personnel.....	Miles T. Dean, M.A.
Division of Health Education.....	Elizabeth Reed, R.N., B.S.
Librarian.....	Tomma Pastorett, B.S., M.A.
Bureau of Finance and Accounts	Fred B. Ragland, B.S.
Assistant Director	Paul R. Tidwell, B.B.A.
Purchasing Agent.....	G. Wilson Baltzell, B.S.
Bureau of Vital Statistics.....	Everett H. Williams, Jr., M.S. Hyg.
Bureau of Local Health Services.....	William L. Wright, M.D., M.P.H.
Assistant Director.....	Hubert U. King, M.D.
Division of Public Health Nursing.....	Ruth E. Mettinger, R.N.
Division of Sanitation.....	A. W. Morrison, Jr., R.N.
Division of Nutrition.....	Mary B. Deaver, M.S.
Bureau of Preventable Diseases	
(Acting Coordinator of Research and Training).....	James O. Bond, M.D., M.P.H.
Division of Tuberculosis Control.....	Dwight W. Wharton, M.D.
Division of Radiological and Occupational Health.....	Edwin G. Williams, M.D.
Division of Epidemiology.....	
Division of Veterinary Public Health.....	James E. Scatterday, D.V.M., M.P.H.
Bureau of Special Health Services.....	Simon D. Doff, M.D., M.P.H.
Division of Hospitals and Nursing	
Homes (Acting)	George W. Hoover, M.D.
Division of Chronic Diseases.....	James E. Fulghum, M.D.
Bureau of Laboratories.....	Nathan J. Schneider, Ph.D.
Miami Regional Laboratory.....	Warren R. Hoffert, Ph.D.
Orlando Regional Laboratory.....	Max T. Trainer, M.S.
Pensacola Regional Laboratory.....	Emory D. Lord, Jr., B.S.
Tallahassee Regional Laboratory.....	Robert A. Graves, M.S.
Tampa Regional Laboratory.....	H. D. Venters, B.S.
West Palm Beach Regional Laboratory.....	Lorraine Carson
Bureau of Maternal and Child Health.....	Lorenzo L. Parks, M.D., M.P.H.
Assistant Director.....	Edward L. Flemming, Ed.D.
Bureau of Mental Health.....	Wayne Yeager, M.D., M.P.H.
Assistant Director.....	Melvin P. Reid, Ph.D., S.M., Hyg.
Bureau of Dental Health.....	Floyd H. DeCamp, D.D.S.
Bureau of Entomology.....	John A. Mulrennan, Sr., B.S.A.
Bureau of Sanitary Engineering.....	David B. Lee, M.S. Eng.
Assistant Director.....	Sidney A. Berkowitz, M.S. Eng.
Assistant to Director.....	Charles E. Cook, C.E.
Division of Water Supply.....	John B. Miller, M.P.H.
Division of Waste Water.....	Ralph H. Baker, Jr., M.S., San. Eng.
Bureau of Narcotics.....	Frank S. Castor, Ph.G.

DIRECTORS OF COUNTY HEALTH DEPARTMENTS

(As of December 31, 1961)

Alachua.....	Edward G. Byrne, M.D., M.P.H.
Bay.....	A. F. Ullman, M.D.
Brevard.....	William L. Wright, M.D., M.P.H. (Acting Director)
Broward.....	Paul W. Hughes, M.D., M.P.H.
Collier.....	Joseph W. Lawrence, M.D. (Acting Director)
Dade.....	T. E. Cato, M.D., M.P.H.
Duval.....	Thomas E. Morgan, M.D., M.P.H.
Escambia.....	J. C. McSween, M.D.
Hillsborough.....	John S. Neill, M.D., M.P.H.
Jefferson.....	Joseph M. Bistowish, M.D., M.P.H. (Acting Director)
Lake.....	J. Basil Hall, M.D., M.P.H.
Lee.....	Joseph M. Lawrence, M.D.
Leon.....	Joseph M. Bistowish, M.D., M.P.H.
Manatee.....	Frederick K. Allen, M.D.
Marion.....	P. H. Smith, M.D.
Monroe.....	John L. Ingham, M.D.
Okaloosa.....	B. R. Provost, M.D.
Orange.....	W. N. Sisk, M.D., M.P.H.
Palm Beach.....	C. L. Brumback, M.D., M.P.H.
Pinellas.....	William C. Ballard, M.D., M.P.H.
Polk.....	James F. Cason, M.D., (Acting Director)
St. Johns.....	William L. Wright, M.D., M.P.H. (Acting Director)
Santa Rosa.....	A. E. Harbeson, M.D.
Sarasota.....	William L. Wright, M.D., M.P.H. (Acting Director)
Seminole.....	W. N. Sisk, M.D., M.P.H. (Acting Director)
Volusia.....	D. V. Galloway, M.D., M.P.H.
Baker-Nassau.....	B. F. Woolsey, M.D.
Calhoun-Jackson.....	Terry Bird, M.D., M.P.H.
Flagler-Putnam.....	James F. Sayers, M.D.
Gadsden-Liberty.....	B. D. Blackwelder, M.D., M.P.H.
Madison-Taylor.....	Charles L. Mattes, Jr., M.D.
Osceola-Indian River.....	C. C. Flood, M.D., M.P.H.
Pasco-Sumter.....	Charles E. Gill, M.D., M.P.H.
Bradford-Clay-Union.....	A. Y. Covington, M.D., M.P.H.
Charlotte-DeSoto-Hardee.....	E. J. McLaughlin, M.D.
Citrus-Hernando-Levy.....	Harold F. Bonifield, M.D., M.P.H.
Columbia-Gilchrist-Hamilton.....	George M. Dame, M.D.
Franklin-Gulf-Wakulla.....	William L. Wright, M.D., M.P.H. (Acting Director)
Glades-Hendry-Highlands.....	William F. Hill, Jr., M.D., M.P.H.
Holmes-Walton-Washington.....	Leo R. Evans, M.D., M.P.H.
Martin-Okeechobee-St. Lucie.....	Neill D. Miller, M.D.
Suwannee-Dixie-Lafayette.....	J. Harland Paul, M.D., M.P.H.

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GENERAL ADMINISTRATION

1

WILSON T. SOWDER, M.D., M.P.H., State Health Officer (on leave)
ALBERT V. HARDY, M.D., Dr.P.H., Assistant State Health Officer
C. M. SHARP, M.D., Assistant State Health Officer
WILLIAM L. WRIGHT, M.D., M.P.H., Assistant State Health Officer

A statement by the Acting State Health Officer, Albert V. Hardy, M.D., Dr.P.H.:

"The problems in public health are manifold, but if there is one single issue which eternally confronts us it is the effort to improve constantly the public health program for Florida. And it is worthy of special note here that programs are in progress looking toward critical revaluation of current programs and exacting ones for the future.

It is difficult to capsule public health problems or solutions because both are constantly overlapping. But I believe the most significant matters facing us for the next decade will be the realms of *chronic illness* and *aged persons*. Hospital care for our aged and indigent is assuming increasing importance. Eighteen and a half million dollars has been allotted for the 1961-63 biennium for the county-state and state-federal programs. These matters involve many facets such as public health nursing, home nursing, rehabilitation and auxiliary services.

Of equal importance must be new emphasis on *mosquito control* and *environmental sanitation*—air and water. These will continue to present complex difficulties in suburban areas. They will continue to increase as the state maintains its rapid growth. And along with air pollution is the matter of *radiological health*. In this regard, the Governor has designated the State Board of Health "the state agency for nuclear licensing and control."

Then, there are imperative requirements concerning *mental health*. Essentially, these center around the necessity of developing community responsibilities in handling more adequately those persons who have early signs of mental problems; of developing community means of preventing serious mental disease, and in follow-up of persons returning home from mental hospitals. There are many things involved in this, but it is chiefly a matter of evolving within each community the means of doing a better job.

We must not forget the ever-present hazard of *epidemic*—nor forget that public health workers are in the first line of attack and defense for the protection of Florida's residents and her visitors. There were two potentially dangerous situations last year: typhoid in Franklin County and encephalitis in the Tampa Bay area. These threatened outbreaks might have gone out of hand had not prompt control measures been taken.

Just as we have one major overall concern—the constant improvement of our public health program—so we have one principal problem in dealing with it. This plague is the perennial one of *money and men*. Florida faces with critical acuteness the demanding and far-reaching needs of a constantly expanding population and industry. These needs

are growing much more rapidly than our resources: enough qualified personnel and enough money. We must be forever forward-looking but when we have found what we are looking for, we must be given—we must, in fact, already have in hand—the means of promptly approaching and firmly securing that goal.”

ACTIVITIES OF THE BOARD

During the year two changes occurred in the membership of the Board. Eugene G. Peek, Jr., M.D., of Ocala was appointed by the Governor, effective June 28, 1961, to replace John D. Milton, M.D., who had been a member of the Board for four years and its President during most of that period. Ashbel C. Williams, M.D., of Jacksonville, was appointed by the Governor effective June 19, 1961, to succeed Sullivan G. Bedell, M.D., of Jacksonville who served four years on the Board. Eight meetings were held during the year; there was one telephone conference meeting. The date, place and business transacted were as follows:

January 15—Jacksonville

1. Mr. Hans Tanzler, attorney at law, was appointed as attorney (General Counsel) to the State Board of Health.
2. Discussed in detail the proposed Pilot Cancer Cytology Program in Dade County and approved an additional \$5900 of federal cancer funds to be spent in connection with this over a period of one year at the end of which this program would be evaluated.
3. Approved the appointment of Dr. James Fulghum as Director of the Division of Chronic Diseases.
4. Created a Division of Personnel with Mr. Miles Dean as Director.
5. Adopted recommendations of the Hospital Advisory Committee on Hospital Services for the Indigent utilizing the benefits of the Mills-Kerr Bill.
6. Heard report by Dr. Milton regarding the Cuban refugee problem in Dade County and authorized the expenditure of \$25,000 federal funds received from the Public Health Service specifically for this purpose.
7. Authorized the State Health Officer to act as their representative in discussions with various groups regarding the Mills-Kerr Bill.

February 14—Jacksonville

1. Discussed proposed chapter of the Sanitary Code on air pollution and postponed action pending further study.
2. Created a Division of Nutrition in the Bureau of Local Health Services with Miss Mary Brice Deaver, Chief Nutritionist, as its Director.
3. Discussed proposed regulations for the control of radiation hazards and postponed their adoption to permit further study.

4. Discussed a situation with regard to a chicken cannery in Bradenton in which there were certain required sewage facilities needed that had not been met. The Board authorized legal assistance to Dr. Allen in serving an injunction in this instance.
5. Discussed proposed budget for the enforcement of the Drug, Devices and Cosmetic Law. Decided that this matter should be referred to the Legislative Council for study and recommendation since funds collected under the law were not adequate for its proper enforcement.
6. Authorized the disposal of the wooden laboratory building in Orlando.
7. Approved certain persons for postgraduate training in public health during the academic year 1961-62.
8. Adopted a policy regarding the employment of summer students by the State Board of Health.
9. Discussed salary of State Health Officer with committee of Florida Association of County Health Officers and approved that a recommendation be made to the Governor for a minimum salary of \$20,000 and preferably \$25,000 for the State Health Officer.

March 11—Jacksonville

1. Adopted a new chapter of the Sanitary Code on air pollution.
2. Adopted regulations for the control of radiation hazards.
3. Discussed and approved proposed bills to be presented to the Legislature.
4. Discussed with a Committee of the Florida Association of County Health Officers the restoration of County Health Unit funds to the legislative budget.
5. Discussed with Chairman of the Legislative Committee of the Florida Anti-Mosquito Association support of the group for additional funds for the mosquito control program of the State Board of Health and another research laboratory on dogflies.

May 8—Telephone Conference Meeting

1. In a telephone Conference meeting discussed and approved an agreement regarding the duplication of duties between the Florida State Board of Health and the State Hotel and Restaurant Commission.

May 27—Miami Beach

1. Discussed Grand Jury Report regarding air pollution in Polk County.
2. Discussed request made by Jackson Memorial Hospital, Miami, for cancer funds for personnel in the amount of \$7548 per year but it took no action.

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3. Approved policy regarding surplus reserve funds in county health departments.
4. Approved change in the name of the Division of Health Information to Health Education.
5. Discussed the legal case on fluoridation in Ft. Pierce and authorized the State Health Officer to take whatever action he deemed necessary in the case.
6. Approved changing the position of Director of Local Health Services from a Health Officer IV to a Health Officer V position.
7. Approved the recommendations of the Medical Scholarship Committee for medical scholarships for certain persons (listed elsewhere).
8. Discussed a resolution regarding patient services through health departments introduced to the House of Delegates of the Florida Medical Association and decided on course of action.
9. Heard a report by Mr. Carter on legislation and outcome to date.

July 23—Jacksonville

1. Elected Dr. Peek as President succeeding Dr. Milton (no longer a member of the Board) and reelected Mr. Cumbie as Vice President.
2. Appointed Dr. William Wright as Assistant State Health Officer and Director of the Bureau of Local Health Services.
3. Authorized a study by an outside accounting firm to make a thorough study of distribution of funds to county health departments.
4. Authorized a proposal for one year only a formula for the distribution of funds to county health departments.
5. Heard a progress report on the building at Winter Haven.
6. Adopted revisions of Chapter XII of the Sanitary Code on Abattoirs.
7. Approved intervention in the court case regarding fluoridation in Ft. Pierce.
8. Authorized attorney of Board to assist Board of Pharmacy and Attorney General's Office in injunction proceedings against Webb's City Drug Store in St. Petersburg.
9. Authorized the State Health Officer to advise the City of Sanford of contemplated legal action regarding requirements set forth by State Board of Health regarding sewage system.
10. Approved recommended osteopathic scholarship.
11. Approved postgraduate training for Mr. Charles Haney for 1961-62.
12. Approved new positions in the cancer control program.

GENERAL ADMINISTRATION 5

13. Approved appointment of members on the Hospital Advisory Committee on Hospital Services for the Indigent.
14. Discussed the plan to close the training school for Negro nurses at Brewster Hospital.
15. Approved plan to seek additional funds from the Budget Commission for the employment of four additional narcotic inspectors and two chemists for the enforcement of the Drug, Devices and Cosmetic Law.

September 8—Tallahassee

1. General discussion regarding State Board of Health matters by the Board members with the Governor and Mr. Harry Smith, Budget Director.

September 17—Jacksonville

1. Approved seeking approval of Budget Director for use of lapsed funds from State Board of Health monies for the employment of personnel for the Drug, Devices and Cosmetic Law.
2. Discussed salary problems existing among professional categories within the State Board of Health.
3. Heard a status report regarding litigation of the State Board of Health.
4. Approved a year's leave of absence for military duty for Mr. Tanzler; and approved the appointment of Mr. Carlton Maddox as General Counsel during his absence.
5. Discussed proposed regulations on toxic pesticides and authorized Mr. Mulrennan to submit them to the Toxic Pesticides Advisory Council.
6. Adopted a statement on oral polio vaccine.
7. Approved the appointment of Dr. John Milton as a member of the State Advisory Committee for Practical Nursing Education.
8. Approved a leave of absence for Dr. Wilson T. Sowder, State Health Officer.
9. Designated Dr. Albert V. Hardy as Acting State Health Officer, when the Governor approved the Board's recommendation for the leave of Dr. Sowder.
10. Approved payment of secretarial services for the President of the Board.

November 19—Jacksonville

1. Approved payment of membership for one year for the American National Council for Health Education of the Public.
2. Approved the establishment of a position of Coordinator of Civil Defense with secretarial assistance.

3. Approved the transfer of civil defense activities and the accident control program from the Bureau of Special Health Services to the Bureau of Local Health Services.
4. Approved a plan for budgeting of additional federal funds.
5. Met and heard from groups regarding the proposed regulations on toxic pesticides.
6. Discussed the proposed regulations on toxic pesticides and legal complications and postponed their adoption.
7. Discussed the use of 12 inch plastic pipe by municipalities for sewer mains.

* * * * *

A full-time news director was added to the administrative staff to aid press, radio, television and magazines in obtaining health information for public dissemination. The office distributed 111 stories to the above media.

* * * * *

RESEARCH COORDINATION

ALBERT V. HARDY, M.D., Dr.P.H.
Assistant State Health Officer
Coordinator, Research and Training

Detailed reports on research in progress during 1961 are included as a part of the record of the bureau or division engaged in these studies. This is a summary report.

In 1961 approximately three-fourths of a million dollars was budgeted by the State Board of Health in 26 different research or demonstration projects. As in the past, the major support was for the Entomological Research Center in Vero Beach. Three other projects were supported by state funds from the Council on Training and Research in Mental Health. There were 19 projects supported by federal funds, 15 by grants from the National Institutes of Health (NIH) and four by direct grants or contracts from other program activities of the U.S. Public Health Service. One each was supported by the Kellogg Foundation, Armed Forces Epidemiological Board and a private pharmaceutical company.

In the year under review, new project grants from the National Institutes of Health were awarded to the Bureau of Entomology for a study of Wildlife Usage of Salt Marshes on the East Coast of Florida; to the Bureau of Sanitary Engineering for a study of the Chironomidae of Florida; and to the Bureau of Laboratories for a study of Arthropod-borne Viruses in Florida. The latter grant, although approved, could not be funded due to a restriction in NIH monies. Also, the Coordinator of Research was instrumental in obtaining a small grant from a pharmaceutical company for a study of Chemotherapeutic drugs during an outbreak of bacillary dysentery in the Sunland Training Center in Ft. Myers.

Substantial assistance was provided to Florida State University in obtaining a biometry training grant in which graduate students would obtain a portion of their field experience with the State Board of Health. This training grant was approved for the Department of Biostatistics at the university.

This office was active in obtaining a project for the evaluation of oral polio vaccine in Hillsborough County. This program was initiated in the late fall with a study of 15 lots of monovalent vaccine prepared from Sabin strains. This pilot project provided data on effectiveness of the vaccines which is required in applying for licensure. This proved to be the first phase of a larger project involving the entire community using a trivalent vaccine. During the earlier study the Hillsborough County Health Department and the Florida State Board of Health research team became familiar with the procedures required for community administration of oral vaccines and developed the necessary surveillance utilizing both epidemiological and virological procedures. A special grant was obtained from the Lederle Laboratory to support these studies.

A new contract was awarded to the Division of Radiological and Occupational Health for study of methods to evaluate and reduce the exposure levels from ionizing radiation administered through medical and dental offices. This contract is a part of a broader proposal designed to evaluate the total population dose in two or more areas of Florida as a part of a long range study to measure the biological effects of chronic exposure of populations to low doses of ionizing radiation.

Two ongoing research projects were renewed. The major one was in Pinellas County where for the past three years a project has been carried out to determine the needs for a public health program to meet the special health problems of the aged. The project was approved to be continued another three years to initiate and evaluate special programs as indicated by the previous three years' study. Also, the project entitled "The Epidemiology of Unclassified Mycobacteria" which has been in progress for the past three years was renewed for another three-year period. This program has been studying the special epidemiological and laboratory aspects of this infection which so closely simulates tuberculosis. A report of the first five years of this investigation was made to the American Public Health Association in Detroit and indicated substantial progress in defining the reservoir and mode of transmission of these infections.

A special study of administration in public health, financed by the Kellogg Foundation, is being continued. This year the emphasis has been on developing evaluation indices for school health programs and continuing the establishment of careful long range plans for each of the various program activities in the state and county health departments. A system for continuous evaluation of a program against its objectives was devised, and is being used experimentally in the migrant project in Palm Beach County. It appears to be capable of adaptation to any program, and may prove to be a valuable tool in public health administration. A considerable amount of time of the director of this project has been taken

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up with the preparation of administrative plans for a combined program of nursing services in 26 rural northern Florida counties.

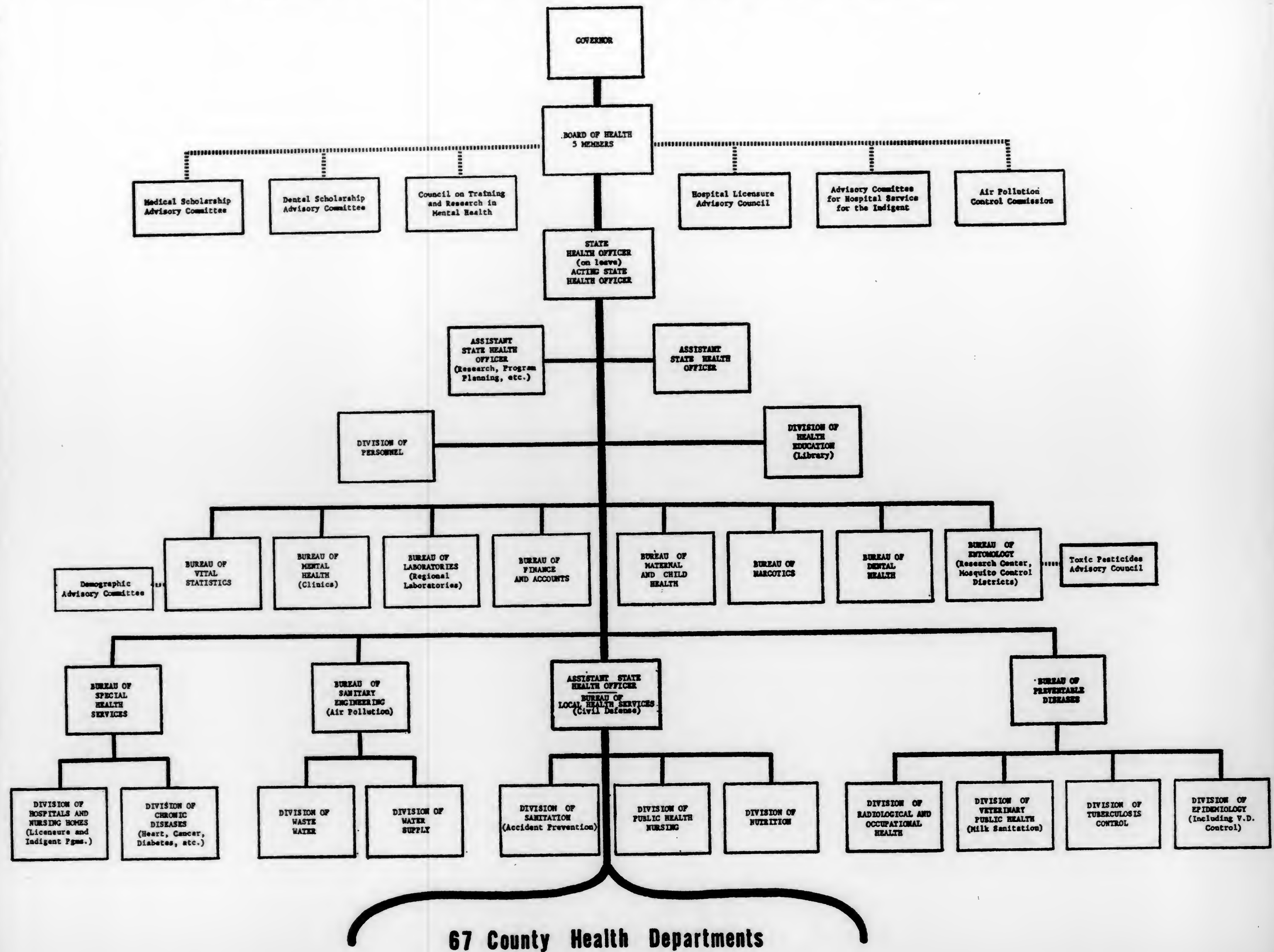
During the year the office assisted in the preparation of two new NIH applications and three special project applications. The latter were prepared following the passage by the Congress in July of the Community Health and Facilities Act providing for support of special projects to develop and demonstrate better methods of providing community health services for the chronically ill and aged. In Dade County a project was prepared to coordinate the services of the welfare and health departments in providing a continuity of comprehensive medical care for welfare clients particularly those assigned to nursing homes. In Pinellas County a project was designed to make a comprehensive study of extra-hospital community nursing needs. This was prepared with the assistance of consultants from the University of Pittsburgh School of Public Health and it is hoped it will provide objective evidence required for the organization of adequate home nursing services. Assistance was also given to the faculty of the School of Nursing, University of Florida, in the preparation of a project to test a procedure for referral and follow-up by county health department personnel of patients discharged from the teaching hospital or attending its outpatient clinics. The major objective of this project was to encourage continuing home nursing care, to evaluate special needs and problems and to provide information which could be utilized in the training of public health nurses who are embarking on this new program.

New NIH grant requests which have been submitted include a proposal to develop standards for sanitary quality of salad-type foods. If authorized this would be carried out by the Bureau of Laboratories, Division of Sanitation and the Orange and Duval County Health Departments. Also a request was submitted for a combined study by the Divisions of Radiological and Occupational Health and Veterinary Public Health of those factors related to the apparent high levels of cesium 137 in milk produced in the peninsular area of Florida.

There was special concern with research training authorized and financed through a research training grant. In this program a social scientist is receiving training in a school of public health and a physician is receiving special clinical training related to public health in the Department of Medicine at Jackson Memorial Hospital in Miami. During the summer months the Coordinator of Research administered the program of special training for 46 summer students. Approximately 26 of these were in 10 bureaus and divisions of the State Board of Health and 20 were assigned to various county health departments.

A beginning was made on coordinating various inservice training programs carried out by bureaus and divisions in the central office. A catalog was prepared of the activities carried out during the first six months of 1961 and the proposed activities of the first six months of 1962. This will be the basis for a calendar distributed to all bureaus, divisions and health departments and also the basis for an evaluation of the special needs in coordination and extension of inservice training.

Organizational Chart of the Florida State Board of Health



SCHOLARSHIPS FOR PROFESSIONAL EDUCATION

The 1955 session of the Legislature created scholarships for the study of medicine, dentistry and the several disciplines concerned with mental health. Each program requires that the scholarship be repaid by a period of compensatory practice in an area that is in need of the scholarship recipient's professional training.

Forty thousand dollars a year is appropriated for scholarships for the study of medicine. The scholarships are awarded by the State Board of Health upon the recommendation of a seven-man advisory committee authorized by statute. George T. Harrell, M.D., Dean of the School of Medicine, University of Florida, and John C. Finerty, M.D., Assistant Dean of the School of Medicine, University of Miami, are ex officio members. The president of the Florida Medical Association designates the remaining five members. They were: Richard C. Clay, Miami; James T. Cook, Jr., Marianna; Homer L. Pearson, Jr., Miami; Melvin M. Simmons, Chairman, Sarasota; and Richard F. Sinnott, Ft. Pierce. Sixteen new scholarships for the study of medicine were awarded in 1961 and 24 previously awarded scholarships were continued.

The 1959 session of the Legislature authorized the State Board of Health to award one of the 10 medical scholarships each year to a student for the study of osteopathic medicine. The State Board of Osteopathic Medical Examiners recommends the student for this award.

Forty thousand dollars is appropriated annually for the award of scholarships for the study of dentistry. As provided by statute, the State Board of Dental Examiners consults with the State Board of Health in awarding dental scholarships. Thirteen new scholarships for the study of dentistry were awarded in 1961 and 23 scholarships awarded previously were continued.

Upon the recommendation of the Florida Council on Training and Research in Mental Health, scholarships or stipends are awarded by the State Board of Health each year for the training of interns in clinical psychology, psychiatric nursing and psychiatric social work. Since 1955 stipends for the training of residents in psychiatry had been awarded; however, these awards were terminated by the 1961 Legislature.

Through the Federal Social Security Act of 1935, the State Board of Health receives federal funds which are used to provide stipends to its employees and those in affiliated county health departments for specialized professional training. These stipends are awarded to career employees who evidence potential for growth and service in specialized areas of public health.

Persons receiving scholarships in 1961 were:

MEDICAL

Scholarships Awarded in 1961:

Thomas John Calhoun.....Jacksonville	Betty Lou Bottoms.....Westville
George Duncan Finlay.....Blountstown	Jack Denby
Buford Gibson, Jr.....Sarasota	Bergstresser*.....Vero Beach

Oliver Hunt Harper.....Wewahitchka
 Betty Jo Johnson.....Dade City
 Webb Buckley Olliphant.....Jacksonville
 James Cranford Phillips.....St. Petersburg
 Thomas Joseph Philpot.....Suwannee
 Joseph Thomas Rabban.....Jacksonville

David Oliver Westmark.....Pensacola
 Prince Benjamin
 Oliver, Jr.Daytona Beach
 Hubert Warren Wingate.....Gainesville
 Ronald Loyde Haney.....Miami
 Braxton William Price.....Ft. Lauderdale

Continuing Scholarships Awarded Prior to 1961:

Awarded 1958:

Jarrett Charles Black
 Robert Elliott Blakey
 William Edwin Braun
 Edward Richard
 McDonough
 Lawrence Donald Porter
 Raymond Charles Walker
 Robert Paul Whittier
 George Allen Williams

Awarded 1959:

Robert Allen Boudet
 Gordon Thames Couch
 Francis Thomas Greene
 Laurence DeLano Kelley
 Everett Norwood
 McCormick
 Wilbur Williams, Jr.

Awarded 1960:

Sylvester Barrington
 Mirion Perry Bowers
 Rodney Lee Brimhall
 John Augustine Moore
 Cupid R. Poe
 Frederick Oliver Smith
 Paul Vincent Sullivan
 Shirley Rose Simpson
 Tommie Lynn Thomas*
 Robert Wheelchel Miles

*Studying Osteopathic Medicine

DENTAL

Scholarships Awarded in 1961:

Clement W. BarfieldPensacola
 Larue E. CurentonCrestview
 George B. DorrisMiami
 Guy Ronald EstesWinter Haven
 John T. Griffin, Jr.....Pensacola
 Charles A. Harrell.....Auburndale

Arthur R. HiggsMiami
 Clarence L. McNair.....Port St. Joe
 Edward L. Peters.....Port St. Joe
 Ivan Beryl Roberts.....Tampa
 James A. Robertson.....Miami
 David M. Strimer.....St. Petersburg
 William R. Warrender.....Winter Haven

Continuing Scholarships Awarded Prior to 1961:

Awarded 1958:

Alvin Bayer, III
 Raymond W. Gage, II
 James Emmett Mongoven
 Oran Lloyd Turner, Jr.

Awarded 1959:

George W. Alexander
 Parris Brown
 Robert A. Brown
 Gene Watkins Eng
 Robert G. Fountain
 Norman H. Hudon
 Paul Vonbose Ladd
 Daniel Gordon Noland
 Thomas Melvin Scott
 Marlin Drant Walker

Awarded 1960:

Teddy Wallace Brown
 Edward Martin Clayton
 Harold Glenwood Gregg
 Emmett Alfred Kirksey
 Lorenza Laws
 Charles H. Ritter
 Earl Thomas Sherman
 Allen R. Treadwell
 Theodore C. Wilson

MENTAL HEALTH
RESIDENTS IN PSYCHIATRY

(Stipends for Residents in Psychiatry terminated in June by Legislative Act)

Herbert C. Anderson, M.D.....Miami
 William H. Geiger, M.D.....Miami
 Ronald A. Shellow, M.D.....Miami
 Paul B. Hamilton, M.D.....Miami

Ralph O. Maercks, M.D.....Coral Gables
 William L. Gustafson, M.D.....Miami
 Theodore M. Wolff, M.D.....Miami

CLINICAL PSYCHOLOGY

Alan W. Rusnak.....Miami Beach
 Everette E. Hall, Jr.....Gainesville
 Nathan W. Perry, Jr.....Tallahassee
 Charles G. Wood, Jr.....Tampa
 Benjamin F. Gillis.....Tallahassee

Eve Lyn WeeksCoral Gables
 Donald B. Clark.....Ft. Lauderdale
 Mack R. Hicks.....Gainesville
 Stephen G. Irving.....Coral Gables

PSYCHIATRIC NURSING

Elma E. Dykes.....Miami
 Joan M. O'BrienTallahassee
 Helen G. Kocik.....Miami

JoAnn H. Patray.....Gainesville
 Lenora J. Hayes.....Chattahoochee

PSYCHIATRIC SOCIAL WORK

First Year

Ronnie FisherTampa
 Harry L. Gaskins.....Tallahassee
 John E. KillianyMiami
 Mary L. Pittman.....Dania
 Mina Jo Powell.....Williston
 Aza Lee Baxter.....Lakeland
 Doris M. Cameron.....Jacksonville
 Asa O. Flake.....Oklawaha
 Marjorie H. Hall.....Tampa
 Margaret R.
 SchaedelClearwater Beach
 Diane Wilhite.....Lake City

Second Year

Eldred R. Bratsen.....Miami
 Barbara E. Holland.....Miami
 Veda N. Jaeger.....Lakeland
 Elizabeth M. Pickel.....Ft. Myers
 James W. Strayer.....Lakeland

PUBLIC HEALTH PERSONNEL

E. R. Broussard, M.D.....Health Officer III.....Escambia
 Elbert Charles Hartwig, Jr.....Biologist III.....Laboratory
 Thomas D. Haupt.....Clinical Psychologist III.....Dade
 Edward L. Flemming, Ed.D.....Clinical Psychologist IV.....Maternal and
 Child Health
 Valerie Anne Rains.....Health Educator I.....Sarasota
 Katharine M. Baker.....Mental Health Worker II.....Dade
 Alice B. Bessenger.....Public Health Nurse II.....Pinellas
 Barbara Lewis.....Public Health Nurse II.....Okaloosa
 Jane Moulthrop.....Psychiatric Social Worker III.....Dade
 W. C. Galbreath.....Sanitary Engineer III.....Broward
 Charles P. Haney.....Sanitary Engineer II.....Sanitary Eng.
 A. L. Johnson.....Research TraineeDade

DIVISION OF PERSONNEL

MILES T. DEAN, M.A.

Personnel Director

Under the general direction of the State Health Officer, this division is responsible for the administration of the personnel program of the State Board of Health. This includes advising administrative officers concerning personnel practices and development; putting into effect procedures for carrying out approved personnel policies; participating in the preparation and administration of the approved Classification and Compensation Plan; administering the leave regulations; maintaining adequate personnel records on all persons employed in the agency; acting as liaison official with the Florida Merit System involving requests for certificates and reporting on the selection of eligibles, promotions, salary advancements, salary adjustments, demotions, transfers, dismissals, lay-offs and resignations; providing and administering a service rating system; and the preparation of necessary reports, both state and federal. Payroll operation, also a responsibility of the Division

of Personnel, includes the administration of leave accounting, the employee insurance program, retirement and Social Security, as well as the preparation of the administrative payroll and distribution of warrants. Preparation of the salary portion of the Legislative Requesting and the Operational Budgets is also a responsibility of this division.

Effective January 1, certain changes were made in payroll procedures which involved placing a considerable amount of calculations on IBM, including the accounting of annual and sick leave.

Pay ranges for 98 classes involved in the State Board of Health Classification and Pay Plan were revised upward. Supplemental rules to the Pay Plan, passed by the Merit System Council and approved by the State Personnel Board, did not allow the salary advancements, as well as salary adjustments, that would have been granted in accordance with the rules for administration of the Pay Plan. A Meritorious Longevity Pay Plan was adopted effective July 1, 1961. Several State Board of Health employees received salary advancements under this plan.

A bill relating to retirement of Merit System employees was passed into law by the 1961 Legislature (Chapter 61-289). This law grants authority to agencies to retire or transfer employees with tenure rights after age 65 and further provides that persons who have reached age 70 will automatically be retired unless they request continuation of employment, which must be approved by the agency concerned.

Turnover continued to be a problem with a significant increase in rates in the sanitary engineering classes. . . . Terminations during the year increased to 458; employment papers for 624 new employments were processed. . . . Postgraduate training was completed by 18 employees and 14 additional persons were placed on postgraduate training status.

TABLE 1
NUMBER OF EMPLOYEES IN THE STATE BOARD
OF HEALTH AND COUNTY HEALTH UNITS
AS OF DECEMBER 31, 1952 - 1961

Year (As of Dec. 31)	State Office	County Health Departments	Total Employees
1961	626	1,593	2,219
1960	604	1,534	2,138
1959	586	1,396	1,982
1958	558	1,321	1,879
1957	528	1,234	1,762
1956	481	1,127	1,608
1955	442	1,057	1,499
1954	421	980	1,401
1953	439	928	1,367
1952	458	895	1,353

TABLE 2
DISTRIBUTION OF PERSONNEL—STATE BOARD OF HEALTH
(OTHER THAN COUNTY HEALTH UNITS)
DECEMBER 31, 1961

ADMINISTRATIVE UNIT	Totals	Physicians	Sanitarians	San. Engineers	Public Health Nurses	Lab. Workers (Prof. & Tech.)	Clerical	All Others
Grand Total	626	23	12	29	18	119	197	228
Administration:								
SHO	25	5					11	9
Personnel	13						10	3
Data Processing	12						7	5
Total	50	5					28	17
Dental Health	8						2	6
Finance and Accounts:								
Fiscal	12						7	5
Purchasing and Property	39						5	34
Total	51						12	39
Health Education	14						5	9
Laboratories:								
Central (Jacksonville)	66					42	7	17
Miami	21					15	2	4
Orlando	10					6	1	3
Pensacola	8					4	1	3
Tallahassee	6					3	1	2
Tampa	21					12	2	7
West Palm Beach	7					4	2	1
Total	139					86	16	37
Local Health Services:								
Bureau	8	3						5
Civil Defense	2		1					1
Nutrition	5							4
Nursing	13				10			2
Sanitation	8		5					1
Total	36	3	6		10			6
Maternal and Child Health	26				7			7
Mental Health	17	1						7
Narcotics	14							9
Preventable Diseases:								
Bureau	10	2				2	6	
Radiological and Occupational Health	7	1		1		3	2	
Tuberculosis Control	20	2					8	10
Epidemiology and Venereal Disease								
Control	15					1	3	11
Veterinary Public Health	6		2				2	2
Total	58	5	2	1		6	21	23
Sanitary Engineering	68		2	27		8	23	8
Special Health Services:								
Bureau and Hospitals and Nursing								
Homes	20	2			1		11	6
Chronic Diseases	7	1					4	2
Total	27	3					15	8
Entomology	71		2	1		19	7	42
Vital Statistics	47						39	8

TABLE 3
DISTRIBUTION OF PERSONNEL IN COUNTY
HEALTH UNITS—DECEMBER 31, 1961

COUNTY	TOTALS	Physicians	Sanitarians	Sanitary Engineers	Public Health Nurses	Lab. Workers (Prof. & Tech.)	Clerical	All Others
GRAND TOTAL....	1593	79	308	12	553	6	336	299
1. Alachua.....	32	2	4		12		7	7
2. Baker.....	4		1		1		2	
3. Bay.....	16	1	3		5		3	4
4. Bradford.....	5		1		2		1	1
5. Brevard.....	24		6		9		8	1
6. Broward.....	79	2	15	2	24		20	16
7. Calhoun.....	4		1		1		1	1
8. Charlotte.....	5		1		3		1	
9. Citrus.....	7	1	1		2		1	2
10. Clay.....	8	1	2		3		1	1
11. Collier.....	11		2		4		3	2
12. Columbia.....	7	1	2		2		1	1
13. Dade.....	253	15	53	3	107		46	29
14. DeSoto.....	5	1	1		1		1	1
15. Dixie.....	3				1		1	1
16. Duval.....	42	2	7		14	1	8	10
17. Escambia.....	61	3	11		18		17	12
18. Flagler.....	5		1		1		1	2
19. Franklin.....	4		1		1		1	1
20. Gadsden.....	12	1	2		6		2	1
21. Gilchrist.....	2					1	1	
22. Glades.....	1						1	
23. Gulf.....	5				2		1	1
24. Hamilton.....	4		1		1		1	1
25. Hardee.....	1				2		2	
26. Hendry.....	8		2		3		2	1
27. Hernando.....	2				1		1	
28. Highlands.....	8	1	2		2		1	2
29. Hillsborough.....	182	8	39	2	62	1	34	36
30. Holmes.....	5		1		2		1	1
31. Indian River.....	11	1	2		5		1	4
32. Jackson.....	14	1	2		6		2	4
33. Jefferson.....	7		1		1	1	1	3
34. Lafayette.....	4		1		1		1	1
35. Lake.....	18	1	3		7		4	3
36. Lee.....	12	1	3		4		2	2
37. Leon.....	37	3	6		10		9	9
38. Levy.....	6		1		2		1	2
39. Liberty.....	3				1		1	1
40. Madison.....	7	1	1		2		2	1
41. Manatee.....	24	1	5		6		6	6
42. Marion.....	14	1	3		5		2	3
43. Martin.....	5		2		2		1	
44. Monroe.....	19	1	3		6		5	4
45. Nassau.....	13	1	2		3		3	4
46. Okaloosa.....	16	1	2		5		3	5
47. Okeechobee.....	4		1		1		1	1
48. Orange.....	70	2	12	1	22		19	14
49. Osceola.....	5		1		2		2	
50. Palm Beach.....	79	6	13	1	23		16	20
51. Pasco.....	5	1	1		2		1	
52. Pinellas.....	148	8	29	2	57	1	30	21
53. Polk.....	78	2	15	1	30		14	16
54. Putnam.....	10	1	1		4		3	1
55. St. Johns.....	10	1	3		3		2	1
56. St. Lucie.....	14	1	4		3		3	3
57. Santa Rosa.....	10	1	2		3		1	3
58. Sarasota.....	39		9		13		10	7
59. Seminole.....	12		3		4		2	3
60. Sumter.....	4		1		1		1	1
61. Suwannee.....	8	1	1		3		2	1
62. Taylor.....	4		1		1		1	1
63. Union.....	3		1		1		1	
64. Volusia.....	57	3	9		17	1	9	18
65. Wakulla.....	2				1		1	
66. Walton.....	7		1		2		1	3
67. Washington.....	5		1		2		1	1

TABLE 4
TURNOVER BY CLASSIFICATION OF THE FLORIDA STATE
BOARD OF HEALTH—STATE & COUNTY
CALENDAR YEAR 1961

	TERMINATION	TURNOVER RATE
Physicians	23	22.5%
Sanitary engineers	10	24.4%
Sanitarians	22	6.9%
Public health nurses	102	17.9%
Laboratory workers (Prof. & Tech.)	16	12.8%
Clerical	121	22.7%
All others (Including Laborers)	164	31.1%
Total	458	21.0%

TABLE 5
EMPLOYEES BY AGE, RACE AND SEX
STATE AND COUNTY—DECEMBER 31, 1961

Age	Total	White Male	White Female	Nonwhite Male	Nonwhite Female
Under 20.....	18	2	16	0	0
20-24.....	100	8	87	3	2
25-29.....	162	49	99	6	8
30-34.....	223	90	101	12	20
35-39.....	318	134	161	3	20
40-44.....	339	104	201	8	26
45-49.....	329	108	199	4	18
50-54.....	321	99	196	5	21
55-59.....	214	67	130	7	10
60-64.....	118	47	61	3	7
65-69.....	53	26	27	0	0
70-74.....	18	8	9	1	0
75-79.....	6	2	3	1	0
TOTALS.....	2219	744	1290	53	132

GENERAL DATA PROCESSING UNIT

ARNOLD KANNWISCHER, B.S.
Procedures Director

This unit performs three major functions: system and procedure analysis, IBM data processing and inactive records storage.

SYSTEMS AND PROCEDURES: This is the analysis of present methods and systems of office performance, with the objective to simplify, improve, mechanize or (in some cases) to eliminate a system to afford a saving to the agency or to increase the efficiency of a particular operation, especially in the areas of records handling and storage, forms design and the mechanization of hand operated procedures.

IBM DATA PROCESSING: The varied and expanded health programs within the State Board of Health, as well as the rapid growth of Florida, have led to an equally large production and accumulation of paper work. This has required a continuing increase in the mechanization of many of the manual record keeping procedures. This unit now processes approximately 100 programs in the IBM Section. These include one or more programs for almost every bureau or division of the State Board of Health.

INACTIVE FILE RECORDS DEPARTMENT: Three years ago it was deemed necessary to establish this department. The rapid accumulation of records presented a serious and costly problem. Additional costly filing equipment was continually requested; worn out file cabinets needed replacing. All of these file cabinets occupied costly prime floor space, and each of these active files needed clerical maintenance. Inventory of records is now in progress and those found to be inactive are placed in transfer file boxes and removed to the Inactive File Department. In addition much microfilming was done, further reducing the size of the records accumulated.

During 1961 the Inactive Records Department received for storage: 187 transfer file boxes, representing 47 file cabinets, 368 boxes IBM cards, 252 microfilm rolls, 143 volumes of Vital Statistics Indexes, 5764 sets of Engineering blueprints for microfilming. It was estimated that the above transfer of records in 1961 afforded the agency a savings of well over twenty-two thousand dollars.

The following were some of the major activities rendered to the bureaus and divisions in 1961:

Personnel Division—A major conversion of records processing continued. All payroll calculations and tabulations as well as leave accounting and personnel statistics were programmed for IBM machine handling. . . . **Narcotics**—The work for this bureau consisted mainly of one large registration procedure: the registration of 10,158 practitioners of the healing arts which consists of the mailing and processing of applications for licensing—and the subsequent tabulation of related statistics. . . . **Finance and Accounts**—The work processed for this bureau included re-

ports on Workman's Compensation, salary budget projections, tabulations on expenditures, travel and county receipts. Property inventory was successfully converted to punch card methods during this year. . . . **Mental Health**—The reports submitted by the community mental health clinics on discharged patients are processed on a monthly basis by this unit. From these reports, calendar year as well as fiscal year statistical data are prepared. Data on more than 8000 discharges were processed in 1961. . . . **Local Health Service**—Numerous requests for statistical information for specific counties and communities were tabulated during the year. A major undertaking of this unit was the study of the feasibility of automating the daily activities reporting of the various disciplines in the county health departments. . . . **Maternal and Child Health**—A monthly maternal death listing as well as an annual listing is prepared for this bureau. . . . **Dental Health, Health Education, Entomology**—There were numerous small studies and IBM machine tabulation performed for these bureaus. . . . **Sanitary Engineering**—The major undertaking for this bureau was the consolidation of their filming and records system. Micro-filming of the blueprints and engineering drawings continued throughout the year. . . . **Vital Statistics**—The processing of all the vital records included in 1961, 116,886 births, 49,110 deaths, 40,934 marriages and 21,682 divorces and annulments. Information from these records were coded and transferred into punch card format, from which are derived the statistics compiled and published in the Annual Report, the Vital Statistics Annual Report, Supplement No. 1, and the Monthly Vital Statistics Report. . . . **Bureau of Preventable Diseases**—This bureau received during 1961, 90,000 communicable disease reports. All these reports were processed by this unit and the data developed were published in the following major reports: the Weekly Morbidity Report, the Monthly Communicable Disease Notes and the Annual Morbidity Report, Supplement No. 2. . . . **Special Health Services and Indigent Hospitalization Program**—During the fiscal year 1960-61, 30,016 approved applications for indigent hospitalization were processed. From this fiscal information many statistical tables were requested, such as age of patients, length of hospitalization, average cost per admission, etc. Also tabulated for this bureau are monthly listings of cancer deaths, rheumatic fever deaths, reportable diseases and the semi-annual poison control register.

DIVISION OF HEALTH EDUCATION

ELIZABETH REED, R.N., B.S.
Director

The division's name was changed in 1961 from Health Information to Health Education as more indicative of its functions. It serves in both a staff and a line capacity to other bureaus and divisions; that is, it acts as an advisory and service unit on matters relating to health education and information. It also serves, to the limit of its available staff time, the county health departments. It acts in many instances as a liaison

with voluntary and official health agencies, and schools and universities. Contacts with the general public are also enjoyed.

During 1961, the following specific activities were noted:

Besides working on displays and exhibits (83) much of the *exhibit consultant's* time was spent doing signs (124) and illustrations (105). Many layouts, charts and maps (145) were for reproduction (61) or slides (15) while miscellaneous duties and conferences (66) kept him busy in Jacksonville. Eight field trips were made to various parts of the state for planning and assisting with exhibits at meetings and fairs. Sufficient planning time and work-storage space remain problems.

Florida Health Notes carries its messages about health problems to more people every year. Following the clearing of the mailing list late in 1960 the county health departments were requested to send in names of those they wished to add to the list. As a result, in 1961 the number of copies distributed each month hit a new high of 15,000. The majority of the readers are lay persons.

Subjects included in the 1961 series were: arthropods, the story of the growth of Florida's county health departments, water pollution, hurricane Donna, diseases of animals transmissible to man, a simplified annual report, the Cuban refugee problem, infectious hepatitis, some of the smaller public health programs and the follow-up program on patients returning from state mental institutions.

Pamphlets continue to enjoy wide circulation, though an effort was made to cut down the number of titles offered and to increase those that would be suitable for persons with less than a sixth grade education. Approximately 235,000 were distributed, with the most popular ones in the field of communicable diseases, nutrition, and maternal and child health. The rise in interest in health careers was reflected in the larger number of pamphlets distributed on that subject.

Packets on "Pure Water and You," (a joint project with the Division of Water Supply) comprising a dozen selected pamphlets, were mailed to representative junior high school teachers. Public libraries were asked if they would like to receive public health pamphlets at regular intervals. Over 60 per cent of the larger libraries replied.

"Who uses the State Board of Health Library?" is a question that is frequently asked. In 1961 State Board of Health personnel led the list with a total of 2265. Next were 571 local (Jacksonville) physicians. The third largest group were 267 students from high schools, colleges and nursing schools. The library was asked for service by 235 employees of county health departments, 147 physicians other than those in Jacksonville and 136 lay people. It is probable that those from county health departments rank third instead of fourth since many requests come in by mail, and these were not tabulated.

Circulation statistics were: books on regular loan, 1886; books on indefinite loan, 550; periodicals, 12,419; pamphlets and reprints, 96. There were 64 items borrowed on interlibrary loan and 11 books sent to

other libraries. During the year 2255 reference questions were answered (a very popular service) and 33 bibliographies prepared.

Periodical loans increased by almost 2000 even though a restriction was placed on lending bound journals. Since the purchase of a photocopier in July, reprints are furnished instead of the actual journal. There were 534 photocopies requested.

Added to the library in 1961 were 922 volumes, of which 202 were bound journals. The library received some extra funds in June and was able to obtain new editions of basic textbooks. There were 1848 worn, or out-of-date items, withdrawn. The number of volumes now in the library totals 17,580.

The *information consultant* for the first part of the year served as a press secretary, issuing many news releases. During the latter part of the year this function was taken over by the State Health Officer's staff. The information consultant is now concentrating on writing, inter-mural reporting and preparation and circulation of radio spots.

In the *Audio-Visual Library* increased activity was reflected in the 11.4 per cent increase in the number of booking orders processed, (5047), and the 9.2 per cent increase in the number of aids circulated, (6716). There was a marked increase in the number of times aids were used (19.4 per cent). The audience total was 685,365 (a 43 per cent increase). Motion pictures still led with 92 per cent of the total circulation.

There were 55 aids removed and 104 were placed in the A-V Library; 45 of these are on loan from commercial companies, professional organizations and voluntary health agencies.

Three pieces of equipment were purchased with an electronic film cleaning machine being the most noteworthy. Two catalog supplements were printed and distributed. Streamlining of all procedures was emphasized in an endeavor to keep up to some degree with the ever-increasing number of requests received. Major changes in booking and filing procedures to further streamline activities will be studied in 1962.

The many and diverse activities of the staff will not be gone into in detail. However, they include many talks given before civic clubs, PTAs, church groups, school and university classes. Assistance was given to a workshop for nursing home administrators, one for clerical personnel, one on health education (auspices of Health Education Section, Florida Public Health Association) and another for mental health workers. The director was a member of the Interbureau Committee on Accident Prevention which met frequently. Two successful community organization projects were spearheaded in Jefferson and Baker Counties. Three regular orientation programs were held plus one for summer student employees. The staff assisted with the annual Teachers Project (see report of the Bureau of Maternal and Child Health). Five foreign visitors were assisted with planned experiences. Innumerable professional and lay meetings were attended and the staff served on planning committees in PTAs, educational organizations and voluntary health agencies.

The long range plan for the division was completed during the year. That there is much interest in such a plan was demonstrated when it was offered to the directors of health education in other states, for 46 requested a copy. In the 1960 Report, there were noted outstanding needs in the division. Those which were satisfied during the past year were: some acceleration of health career recruitment, and streamlining of procedure in the Audio-Visual Library. There remains the need for a field consultant, regional health educators, an exhibits trailer, scheduled TV programs, regional workshops on cultural factors affecting health education, and increased contact with the state's 24 community colleges. Others are an evaluation of the problems concerned in the editing and publication of State Board of Health monographs; an increased emphasis on service to other bureaus and divisions, and health educators for vacant positions in the counties. There are presently only five functioning on the local level.

BUREAU OF LOCAL HEALTH SERVICES

WILLIAM L. WRIGHT, M.D., M.P.H.
Director

HUBERT U. KING, M.D.
Assistant Director

The organization and supervision of county health departments continues to be a major responsibility of this bureau. The bureau furnishes consultation to the staffs of county health departments and assists them with recruitment and staffing, budget planning and review, training programs, program planning and evaluation, and coordination of local programs with activities of the State Board of Health. The bureau is the immediate representative of county health departments within the State Board of Health.

This bureau is administered by a director and an assistant director. During the year two physicians served on the standby staff of the bureau providing additional assistance to the director. A resident with the U.S. Public Health Service also served on the staff for part of the year. Included within the bureau are the Division of Public Health Nursing, Division of Sanitation, Division of Nutrition, and Clerical Section (formerly Records Consultants). In December two new programs were added—the Accident Prevention Program and the Health Mobilization Services Program to coordinate health and medical services for civil defense.

Not only has the bureau been actively engaged with older responsibilities, but it has devoted attention to newer responsibilities. In the area of older responsibilities much time has been given to the review of merit system and personnel procedures in an attempt to simplify these procedures. Numerous meetings have been held to study budget and accounting procedures. Additional time has been devoted to coordination of local programs and bureau activities with those of other bureaus, state and local relations, program evaluation, training programs and activities, recruitment and salaries. Plans have been developed for expansion of the combination public health-home nursing care program made possible with additional federal funds through the Chronically Ill and Aged Program and a USPHS grant. Plans are also under consideration for expansion of the Accident Prevention and Health Mobilization Services Programs.

STAFF CHANGES

With the resignation of Wilfred N. Sisk, M.D., as director of the bureau in December 1960, C. M. Sharp, M.D., Assistant State Health Officer, was appointed acting director and served in this capacity until August 1961 at which time William L. Wright, M.D., director of the Sarasota County Health Department, was appointed Assistant State Health Officer and director of the Bureau of Local Health Services. Hubert U. King, M.D., continued as assistant director during the year. James C. Loranger, M.D., was appointed to the standby staff in April and served until December when he became director of the St. Johns County Health Department. Chester L. Nayfield, M.D., transferred as director

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The organization and supervision of county health departments continues to be a major responsibility of this bureau. The bureau furnishes consultation to the staffs of county health departments and assists them with recruitment and staffing, budget planning and review, training programs, program planning and evaluation, and coordination of local programs with activities of the State Board of Health. The bureau is the immediate representative of county health departments within the State Board of Health.

This bureau is administered by a director and an assistant director. During the year two physicians served on the standby staff of the bureau providing additional assistance to the director. A resident with the U.S. Public Health Service also served on the staff for part of the year. Included within the bureau are the Division of Public Health Nursing, Division of Sanitation, Division of Nutrition, and Clerical Section (formerly Records Consultants). In December two new programs were added—the Accident Prevention Program and the Health Mobilization Services Program to coordinate health and medical services for civil defense.

Not only has the bureau been actively engaged with older responsibilities, but it has devoted attention to newer responsibilities. In the area of older responsibilities much time has been given to the review of merit system and personnel procedures in an attempt to simplify these procedures. Numerous meetings have been held to study budget and accounting procedures. Additional time has been devoted to coordination of local programs and bureau activities with those of other bureaus, state and local relations, program evaluation, training programs and activities, recruitment and salaries. Plans have been developed for expansion of the combination public health-home nursing care program made possible with additional federal funds through the Chronically Ill and Aged Program and a USPHS grant. Plans are also under consideration for expansion of the Accident Prevention and Health Mobilization Services Programs.

STAFF CHANGES

With the resignation of Wilfred N. Sisk, M.D., as director of the bureau in December 1960, C. M. Sharp, M.D., Assistant State Health Officer, was appointed acting director and served in this capacity until August 1961 at which time William L. Wright, M.D., director of the Sarasota County Health Department, was appointed Assistant State Health Officer and director of the Bureau of Local Health Services. Hubert U. King, M.D., continued as assistant director during the year. James C. Loranger, M.D., was appointed to the standby staff in April and served until December when he became director of the St. Johns County Health Department. Chester L. Nayfield, M.D., transferred as director

of the Polk County Health Department to the standby staff in August as health officer consultant. E. A. Leopardi, M.D., USPHS resident, completed his residency with the bureau in July. George A. Dame, M.D., former director of the Bureau of Local Health Services, was appointed special consultant to the bureau in January.

TRAINING ACTIVITIES

During the year the bureau continued its orientation and training programs for health officers, sanitarians and nurses. The orientation program for new health officers was revised and four recently employed health officers received this orientation. The Florida Association of County Health Officers in cooperation with staff members of the State Board of Health sponsored a three-day seminar on public health laws and legislation at Miami Beach in September.

Study of training programs and activities within the bureau continued and was broadened to include a review of all such training activities conducted by the State Board of Health. It is hoped that this study will result in more interesting and better planned training programs for our staffs.

During the year two local health officers enrolled for postgraduate training in schools of public health. In addition ample opportunity was provided for local health officers to participate in various meetings and courses within and outside the state.

CLERICAL SECTION

During 1961 the records consultants continued to offer consultation and assistance to local health officers and their clerical staffs. A major activity was continued assistance in converting medical and nursing records to the new central filing system with revision of certain medical and nursing records. The consultants visited some 16 counties to assist with this undertaking.

Other activities included visits to assist with the reorganization of files, to assist with orientation of new clerical personnel, and to discuss and help with special clerical problems. In addition to these activities, these consultants also worked closely with the Bureau of Vital Statistics in the follow-up of vital statistics problems, checked all Monthly Activities Reports from the counties and helped clear up errors, participated in the state orientation program for new personnel, and worked with the State and Local Records Committees in reviewing and revising records.

At the end of the year, it was decided to broaden the services of these consultants to include more consultation on personnel procedures, budgets and accounting procedures.

COUNTY HEALTH DEPARTMENTS

During the year there were 42 well-organized county health units in the state. Of this number 26 were single county units, seven were bi-county units, and nine were tri-county units. The services of 78 full-time

physicians were required, including 42 directors and 36 assistant health officers. In addition a number of part-time physicians were employed in clinical activities and six public health residents received training. During this period six directors resigned, three transferred to other positions, and there were five new appointments. There were also two deaths among our health officers.

There were no major changes in the organizational pattern of county health units during 1961. Following the resignation of the director of the Jefferson County Health Department, this department has been temporarily aligned with the Leon County Health Department, whose director will supervise this program. Working under him will be a part-time physician who will serve as assistant health officer for several months. Also, due to the resignation of the director of the Franklin-Gulf-Wakulla County Health Unit, the same physician serving Jefferson County will serve as acting health officer for Wakulla County during the coming months. Franklin and Gulf Counties will temporarily be served by another health officer until the fall of 1962 and until a permanent health officer can be secured for these counties.

Staffing and Financing: As of December 30, 1961, there were 1549 employees on county health department staffs. This is an increase of 15 employees over 1960. County health department budgets totalled \$9,159,352 or \$1.78 per capita. Of this amount \$6,663,206 (\$1.29 per capita) came from local contributions and \$2,496,146 (\$0.49 per capita) from state and federal funds.

Health Center Construction: During the year a new headquarters building was completed in Hardee County. In addition, new auxiliary centers were completed at Bartow in Polk County, Pinellas Park in Pinellas County, Delray Beach in Palm Beach County, and in the new courthouse annex at New Port Richey in Pasco County. Lake County secured new auxiliary quarters at Clermont. In the planning stage are new headquarters centers for Marion, St. Lucie and Highlands Counties. Additional auxiliary centers are planned for Polk and Okaloosa Counties.

Trends in Local Public Health Practice

The Florida Association of County Health Officers came into being in 1960 as a result of reorganization of the Health Officers' Conference and continued to be an active and effective organization during 1961. In 1960 this group stimulated the publication of a quarterly *Bulletin for County Health Officers* which is still published by the State Board of Health under direction of this bureau. It is believed that the reorganization of the Health Officers' Association and publication of the *Bulletin* will improve communication among local health officers and between the State Board of Health and local health officers. In addition during the year, an Association of Sanitarian Directors was organized. Close co-operation between the associations for health officers, nursing directors and directors of sanitation should contribute materially to Florida's public health program.

One of the most significant trends in Florida's public health program is the anticipated expansion of its combination nursing service. This program which provides bedside nursing care in addition to the traditional public health nursing services has been in existence for a number of years in Florida. In 1960 there were seven counties with the combination service and three counties with coordinated services where the county health department provides administrative leadership and works closely with the local VNA group. During 1961 Alachua and Volusia Counties expanded the combination service and Manatee County began a new program. With the receipt of additional federal funds from the Chronically Ill and Aged Program and a USPHS grant, added impetus was given to this program. Plans were laid in 1961 for the expansion of this program throughout the state, and it is expected that in a few years a majority of the state will be covered. The Clay, Volusia and Sarasota County Health Departments have agreed to serve as training centers for public health nurses. The University of Florida is cooperating with the State Board of Health in establishing refresher courses in bedside care for this program. In addition, staff members are investigating the possibility of setting up other training centers in the state especially in the area of rehabilitation training. Scholarships will be provided for public health nurses to receive training at New York University's Institute of Physical Medicine and Rehabilitation and at the Kenny Rehabilitation Institute. Other methods of enhancing this program are under investigation; e.g., the use of homemakers in the program and the value of "coordinating nurses" who will work in local hospitals to serve as liaison people between the patient, family, attending physician, hospital staff and the county health department.

With the added attention given to Health Mobilization Services and Accident Prevention Programs at state level, it is expected that these programs will be expanded during the coming year with more definitive local programs and greater local participation.

The review and rewriting of Florida's public health laws and regulations in conformity with the provisions of the Florida Administrative Procedure Act enacted at the last session of the State Legislature should result in clarification and better understanding of these legal provisions with more effective and uniform application throughout the state.

HIGHLIGHTS OF LOCAL PROGRAMS

The statistical report of county health department activities (Table 7) indicates the number and types of various services rendered by county health departments. The following is a summary of some of the more exceptional or outstanding developments in local programs: *Alachua County Health Department*—Expansion of the combination nursing service with plans for a "coordinating" nurse in the local hospital to serve in a liaison capacity between patients, doctors, hospital staff and the county health department. . . . *Brevard County Health Department*—Continues to demonstrate effectively the rapid implementation of public health services in an "impact area", resulting in this county from over-

whelming population increase due to development of aero-space activities at Cape Canaveral. Although the program was slowed temporarily due to resignation of the health officer, it should now expand rapidly under direction of the newly appointed director. . . . *Broward County Health Department*—Cooperated with the local medical society, lay diabetes society and newspaper in conducting a county "Health Fair" attended by more than 6000 persons. As a result of this fair 10 suspected cases of diabetes and 69 suspected cases of glaucoma were detected. Screening procedures included urine tests for sugar, blood sugar tests for those with glycosuria, eye tests for glaucoma, chest X rays and blood pressures. In addition a large segment of the population received an excellent health education program. . . . *Clay County Health Department*—Was designated early in 1961 as the training center for the public health nurses' orientation program. As plans for expansion of the combination nursing program developed, plans were made to expand the training activities of this unit to provide additional short courses in home nursing care for public health nurses in the state. . . . *Collier County Health Department*—Began a cervical cytology program in connection with maternity clinic program during the year using the Papanicolaou smear. Out of the initial 57 patients tested, two cases of cervical cancer were detected and confirmed by biopsy. In addition five other cases of chronic inflammatory disease, probably precancerous, were found. This proves the value of this program in a small county when coordinated with the regular maternity care program. . . . *Dade County Health Department*—Received a USPHS grant to demonstrate that continuity of medical care and rehabilitative needs of persons with chronic disease can more adequately be met by existing community resources through planning and well developed coordinated efforts. . . . *Escambia County Health Department*—Made a five-year evaluation of its subdivision sanitation program which is an index not only of the progress this county has made but also reflects the rapid progress being made throughout Florida in this program. This county reports 75 per cent of subdivisions now served by public water supply versus 54 per cent in 1956; 32 per cent served by central sewerage systems versus eight per cent in 1956; 63 per cent with paved streets versus 37 per cent five years ago; 34 per cent with storm sewers versus five per cent; and 37 per cent with curbs and gutters versus 11 per cent. Began a study of school health services with organization of a school health council. A special team will interview school principals and health coordinators and will present its findings to the council. The objectives of this program are to improve all school health services by adding needed services and deleting outmoded ones. . . . *Hillsborough County Health Department*—Laid plans in 1961 for a countywide program using the Lederle Sabin Trivalent Oral Polio Vaccine to begin early in 1962. The program has as its goals demonstration of use of a proven clinically effective oral polio vaccine, ability to reach segments of a community population heretofore unreached by previous polio immunization programs, maintaining community immunization by continuing infant immunization, demonstration of the vaccine in eliminating "wild polio virus" from the community by long-term virological studies, and carrying

out selected behavioral science studies to demonstrate those factors influencing both individual and community acceptance of the vaccine. Began community occupational health program with assistance from the USPHS. . . . *Jefferson County Health Department*—Plans were made during 1961 to begin a continuing multiphasic screening program in this county to determine the value of such a program in a rural area. Details of the program are being worked out and it should begin early in 1962. . . . *Lake County Health Department*—Is conducting a "controlled tooth brushing program" in the schools with some 1400 children participating. . . . *Manatee County Health Department*—Plans were made to begin a community combination nursing service. Held a "Diabetes Detection Week" at the health department in cooperation with the medical society and diabetes association. As a result 36 persons were found to have positive urine tests and were referred to the family doctor for follow-up. Began using membrane filter method for rapid testing of water for coliform organisms. . . . *Monroe County Health Department*—New health officer began intensive program to study all phases of sanitation on the Keys. Numerous discussions have been held with officials, industry representatives and State Board of Health consultants. This should result in a significant improvement in all phases of the sanitation program in the county. . . . *Orange County Health Department*—In cooperation with the medical society, welfare department and state mental hospitals, has developed an effective follow-up program for indigent patients returning from mental hospitals to the community. Visits to the mental health clinic and drugs for home treatment are arranged by the health department. Public health nurses consult with the staff of the mental health clinic and visit patients in the home. . . . *Palm Beach County Health Department*—Continued one of the state's outstanding migrant labor programs. Early in the year conducted a combined chest X-ray and blood test survey among 3900 migrants. The "Rapid Plasma Reagin" (RPR) test was used for syphilis. Some 546 out of 3786 tests were reactive. Of this number 173 were ultimately given treatment for syphilis. . . . *Pasco County Health Department*—With assistance from the Bureau of Special Health Services, conducted a multiphasic screening program in three retirement villages in the county. Over 800 people (eight per cent of total population) were tested in four days. Testing was limited to those over age 30 with more than 50 per cent being over 65 years of age. The survey was carried out on street corners, in shopping centers and public buildings. Tests offered were height and weight measurement, hemoglobin determination, blood sugar, cholesterol studies and blood pressures. As a result 11 per cent were found to be more than 20 per cent overweight; 24 per cent had elevated blood pressures and 17 persons (two per cent) had abnormal glucose tolerance tests on retesting and were referred for follow-up by their family doctor. Cholesterol levels were higher than expected—the average for males over 60 was 304 milligrams per cent and females over 60 was 330 milligrams per cent. More comparative studies are being done and will be reported later. . . . *Pinellas County Health Department*—Formation of a "Staphylococcus Team" deemed necessary as a result of the increase in such infections

in schools, nursing homes, etc. The director of the Communicable Disease Section heads the program assisted by a physician, sanitarian and public health nurse. This team will investigate all reported cases of staphylococcus infections, make bacterial studies and recommend control measures. Developed a program to evaluate Sterneedle technique in mass screening for tuberculosis with comparison with the Mantoux test and follow-up X-rays as indicated. Cooperated with the Board of Education, Community Welfare Council, and newspapers in sponsoring the second annual "Health Futurama" designed to give information to students, parents, teachers and guidance counsellors about careers in the health and allied professions. Purchased a Medical Disaster Trailer for use in the community. . . . *Polk County Health Department*—Conducted selective 70 mm chest X-ray survey in areas where previous tuberculin testing of school children indicated higher incidence areas. As a result, additional data on contact rates was compiled and two new active cases of tuberculosis were discovered and hospitalized. . . . *Putnam-Flagler County Health Unit*—Began dental preceptor program in both counties. The beginning of this program is an index of the continued interest in smaller counties in providing better dental care for the community. As additional funds become available even more counties should begin similar programs. . . . *Sarasota County Health Department*—Received a USPHS grant to demonstrate a public health approach to reduce the incidence and prevalence of alcoholism by incorporating this program into the general public health program of a county health department. A psychiatric social worker has been employed and the staff has begun a great deal of basic community work on the program. Progress has been somewhat delayed, however, due to transfer of the health officer. . . . Plans were made for a "coordinating nurse" in the combination nursing program. Designated as a training center for public health nurses in this program. . . . *Volusia County Health Department*—Continued expansion of the community combination nursing program. Began participation in State Board of Health residency program with the first resident being employed in November. . . . Designated as a training center for public health nurses in connection with expansion of the home nursing program. . . . *Indian Health Services*—Glades-Hendry County Health Unit continued to provide public health services as well as assisting in medical care programs for the Seminole Indians on the Brighton and Big Cypress Reservations in cooperation with the USPHS. The Broward County Health Department provided similar services for the Seminoles in that county.

DIVISION OF PUBLIC HEALTH NURSING

RUTH METTINGER, R.N.
Director

This division has been for many years a part of the Bureau of Local Health Services. Its administrative structure remains unchanged, consisting of a director, an assistant director, five public health nurse consultants, one nurse-midwife consultant and two clerical personnel. It is the

responsibility of the division to offer guidance and technical assistance to public health nurses at the local level and to coordinate the efforts of all departments of the State Board of Health as they concern nursing services.

The nurse consultants offer technical assistance to county supervising nurses in planning clinic schedules, assignments and districts. In small counties without supervisors they assist individual nurses to plan daily activities and review family folders and caseloads.

In the field of consultation, aid in the definition and solution of problems is offered to county health department nurses, and an attempt is made to show the relationship of each problem to larger public health concepts.

Education is an important facet of the consultants' duties. They keep abreast of new developments in public health, such as civil defense, geriatrics, homemaker services, home nursing care, mental health and accident prevention, and through the stimulation of inservice training attempt to pass on information to nurses at the local level. Workshops in human relations, cancer, heart disease and other fields have been conducted. Aid is offered in the planning of county and district inservice training programs, the orientation of new personnel and in the making of time studies and evaluation of nursing services.

At the county level, the nurses' role is to give direct service to the community, to interpret and teach health principles to public and professional groups and individuals and to introduce new programs in such a way that they will be accepted by the community. This division, through its consultants, offers support and knowledge of resources in every phase of the nursing program.

A survey of the educational background of the public health nurses revealed that 30 (4.6 per cent) had earned masters' degrees; 156 (23.8 per cent) bachelors' degrees, 72 (11 per cent) had completed a one year public health nursing program, and 398 (60.7 per cent) had less than one year of preparation.

The nurse-midwife consultant offers help to county health department nurses in the supervision and teaching of midwives. Two significant events in this area were the completion of a training replacement program in two rural communities, supported by the local medical society. The facets in the preparation of two younger women to replace old midwives included: recruitment of suitable students, instructional material, use of audio-visual aids in teaching, resource lecturers from various agencies, field trips to antepartum and postpartum patients, observation of hospital and home deliveries, and apprenticeship under licensed midwives. The need for better trained midwives to become qualified to meet the demand for such service is recognized by county health officers. Health department staffs gave valuable assistance to the midwife consultant in planning, scheduling and securing much needed teaching aids in the above areas, and one-day meetings held throughout the state. More than half the midwives were reached in these meetings. A supple-

ment on the care of the premature infant was made to the standard midwife manual and distributed to the counties throughout the state.

As the number of physicians and hospitals in the state increases, the need for midwives becomes less. Their number decreased from 228 in 1960 to 217 in 1961, a decrease of 4.8 per cent.

In the past few years, a number of new programs have come into existence, and in some traditional activities changes in emphasis have been necessary. The most important and comprehensive of these has been the promotion of bedside nursing in the home by county health department nurses. By the end of 1961 nine counties or parts of counties were giving bedside nursing services.

In the last months of 1961, additional federal funds have been made possible for extension of home nursing services throughout the state as quickly as the county health departments can organize them and employ additional nurses. It is hoped that in the immediate future the program will become statewide. A manual has been prepared and distributed which outlines a pattern for the development and administration of the service. This is the first attempt that has been made to provide such services on a statewide basis, and the entire country will be watching Florida's progress.

DIVISION OF SANITATION

A. W. MORRISON, JR., R.S.
Director

This division's responsibilities and activities in 1961 continued to be rather diverse in the particular while remaining broadly concentrated on the one goal of assisting the county health departments in providing effective environmental health programs. In order to function properly within this framework the division, through the services of five consultants, the director and two clerical personnel, carried on activities in three general categories: consultation, training and the permitting program as well as in a number of special programs.

CONSULTANT SERVICE

Consultation services were of primary importance in 1961. Staff consultants made 316 visits to county health departments in order to provide information and assistance concerning various local environmental health matters. Each county was visited a minimum of once during the year. Most received consultation services on at least a quarterly basis.

Special assistance was requested by a number of counties, and wherever possible, such was provided. Worthy of note in this regard were the complete evaluation of the environmental health program in one county and the aid provided another county in surveying and evaluating its nursing home facilities. Epidemiological assistance was provided in the investigation of a food-borne disease outbreak in one county. Similar

service was supplied by two staff members, for an extended period of time, during an investigation of a potentially serious communicable disease episode associated with Florida's shellfish industry.

Other activities of interest were: the major effort extended in assisting a county health department in the survey, analysis and preparation of a detailed report to the county commission concerning the county's vast garbage problem; the aid provided to the State Department of Education and a county health department in a complete school plant operation and maintenance survey; and in the special guidance and assistance given to yet another county in establishing a housing and premise survey and corrective program in a problem area.

TRAINING

Eight county sanitarians, one each from Dade, Hillsborough, Pinellas, Seminole, Palm Beach, Escambia and two from Broward completed the division's 12-week inservice training program during 1961. Each of the staff consultants participated in this training effort.

A significant addition to the division's training program was made this year with the planning and presentation of topical short courses for sanitarians. A two-day course on shellfish and crustacea sanitation was presented in Jacksonville during October. This program was attended by 33 sanitarians representing 21 counties. In December a three-day training session on common carrier sanitation was presented in Miami. Sixteen sanitarians were in attendance. Valuable assistance in preparation and presentation of both programs was provided by the U.S. Public Health Service. Considerable planning for additional courses in the fields of program administration, food processing and swimming pool sanitation has been undertaken, and it is expected that such courses will be presented early in 1962.

Twenty-two county health departments, often assisted by the division's consultants, reported foodhandler training programs presented in 1961. A total of 3159 persons received the benefit of this training. These figures represent a significant increase in this training activity throughout the state as 11 counties reporting foodhandler training for 1961 recorded no such activity during the previous year.

Staff members again participated in a wide variety of specialized training activities. All consultants worked with representatives of the State Department of Education in the school custodian clinics presented throughout the state during the summer. One consultant took part in the three-day School Plant Management Conference held in Orlando and another staff member served as program chairman of the annual three-day short course presented by the Florida Association of Sanitarians.

PERMITTING PROGRAM

This division is responsible for issuing State Board of Health licenses or permits required for the operation of five types of establishments: trailer parks, food processing plants, labor and recreational camps, bottled water plants and rendering plants.

All field activities associated with these establishments are carried on by county health department sanitarians who provide routine survey services to determine the adequacy of environmental conditions and make recommendations to this division concerning the issuance of permits. Division consultants continued to provide technical assistance to the counties in these programs during 1961, with considerable effort being devoted to labor camp and food processing plant activities.

Food processing plants routinely visited by county health department sanitarians and operating under State Board of Health permits continued to increase in number during the year. Four hundred thirty-seven plants were issued operational permits in 1961, resulting in an increase of 79 plants over the total permitted last year. An additional seven counties assumed responsibility in the field during the year, raising the total number of counties involved to 26. Current planning in this program is based on the expectation that even greater activity will occur in the coming year.

Trailer park permit transactions accounted for a sizable share of the permitting activities. A total of 373 permits were issued or re-issued, involving new parks, park expansion and changes of ownership. Four parks were reported as closing during the year and 120 new trailer parks opened.

Camps, both recreational and labor, continued to occupy a prominent place in this division's overall responsibilities. Field activities undertaken by the local sanitarians continued to increase in order that environmental conditions in the camps could be brought to and maintained on a high level. Two hundred and one migrant labor camps and 34 recreational camps were issued 1961 licenses, thereby increasing the number of licensed facilities over the previous year by 47.

Bottled water plants, 33 in number and located in 18 counties and four out-of-state areas, were permitted by this division during 1961. Routine sampling and laboratory analysis of each product continued as an integral part of the program. A new development of interest was that associated with several requests for review of proposed canned water operations. Only one such proposal, requiring appreciable consultation and technical assistance from the county health department and this division, actually resulted in formal approvals being issued and the commercial processing of canned water.

Rendering plant permit activities showed a moderate increase over that reported last year as a total of 13 plants had been permitted or had permit applications pending by the end of 1961.

COMMON CARRIER CERTIFICATION

Submission of semi-annual reports and recommendations to the USPHS regarding environmental conditions of interstate carriers and their servicing facilities required a large amount of time and effort again this year.

Complete evaluations of 108 facilities and establishments were provided at least twice during the year by the county health departments and many other routine or follow-up contacts made. Reports concerning these activities were processed by this division and forwarded to the USPHS for publication in their certification lists. Common carrier facilities now include: 21 railroad watering points, five railroad catering facilities, 27 airline catering establishments, 13 airline servicing areas and 55 vessel watering points.

OTHER PROGRAMS

Food sanitation activities were of major importance in local environmental programs. There were 27,057 food establishments, representing an increase of over 2000 from the previous year, admitted to service. There were 169,283 visits made to these establishments in 1960.

Activities related to housing, school health, child care centers, public and private premise sanitation, public health nuisance control, private water and sewerage, and a myriad of other establishments and facilities continued to increase as the state's population expanded. Such expansion placed severe demands on many already heavily burdened local sanitation staffs and markedly increased the workload of this division.

SPECIAL ACTIVITIES

Recruitment activities of the division continued at a high level, resulting in a large number of job applicants being processed and interviewed, and numerous telephone conversations and considerable correspondence.

Review of several chapters of the State Sanitary Code was undertaken in 1961 for purposes of revision and updating. Chapter XII, Abattoirs, was revised in cooperation with other interested bureaus and divisions, as well as the county health departments, industry representatives and the Florida Department of Agriculture. The revision became effective September 1961.

The first edition of the *Sanitarians' Manual*, as prepared by the staff consultants, was completed and published in 1961. This 115 page manual outlining responsibilities, procedures, activities and providing reference sources for Florida's environmental health program is considered to be one of the foremost accomplishments of the division this year.

TABLE 6
PERMITTED ESTABLISHMENTS AND FACILITIES—1961

County	Trailer Parks	Food Processing Plants	Camps	Bottled Water Plants	Rendering Plants
Alachua	80	7	2	1	
Baker	2				
Bay	69				
Bradford		1	1		
Brevard	81	27	7	1	1
Broward	111				
Calhoun	2				
Charlotte	15	2			
Citrus			1		
Clay	18		4		1
Collier	18	1	41		
Columbia	3		1		
Dade	97	65	41	4	5
DeSoto		5			
Dixie	5		1		
Duval	171	8		1	
Escambia	155	1	1		2
Flagler	3				
Franklin					1
Gadsden	8				
Gilchrist					
Glades	4		5		
Gulf	4				
Hamilton	10				
Hardee	3		2		
Hendry	6		5		
Hernando	1				
Highlands	8				
Hillsborough	224	50	6	1	2
Holmes					
Indian River	16			1	
Jackson	5	4	2		1
Jefferson					
Lafayette			2		
Lake	41				
Lee	70	4		1	
Leon	52		3		
Levy	10				
Liberty					
Madison	1				
Manatee	79	31	12	2	
Marion	33	3			
Martin	29	4		1	
Monroe	60				
Nassau	7	1	1		
Okaloosa	42				
Okeechobee	15	1			
Orange	114	21	10	1	
Osceola	11			1	
Palm Beach	106	18	32	3	
Pasco	96		12	1	
Pinellas	270	69	3	4	
Polk	220	37	19		
Putnam	17	1	6		
St. Johns	10				
St. Lucie	24	9	2	1	
Santa Rosa	27				
Sarasota	73	39	2	2	
Seminole	12	1			
Sumter	17				
Suwannee	3				
Taylor	5				
Union					
Volusia	77	27	11	3	
Wakulla					
Walton	4				
Washington				4	
Out-of-State					
Total	2644	437	235	33	13

DIVISION OF NUTRITION

MARY BRICE DEAYER, M.S.
Director

This division is responsible for the organization, planning and development of a nutrition program which will promote and work toward optimal nutritional status for the people of Florida. Inasmuch as good nutrition is basic to good health and to the control of many diseases, it is the function of the division to work toward the inclusion of a sound nutrition program in the overall health program of every county.

In February 1961, Nutrition Services was changed to the Division of Nutrition by the State Board of Health. This action was indeed gratifying and gave recognition to the growth and development of the importance of nutrition in the field of public health in Florida.

During the year the staff members remained the same with two exceptions: one regional nutritionist retired and was replaced, and a new position, a dietary consultant for nursing homes, was added. This position was filled in June when the first step forward in setting up a statewide dietary consultation program for institutions was taken.

The general pattern of working, started in the previous two years, was followed and considerable expansion noted in the development of regularly scheduled service for the counties. The four regional consultants have reported that this type of service is being accepted and used in an increasing number of counties. Such regularly scheduled consultation has proved to be effective in most instances in the development of a sound public health nutrition program for the county.

Activities have continued in the general areas: services to health departments; services to the community; services to other organizations and agencies; services to institutions.

In consultation and other *services to health departments*, staff in-service education holds priority in most instances. This year 122 group conferences and 246 individual conferences were held. The nutritionist had the major responsibility for these and in addition, attended 79 meetings with health department personnel as a participant but not as the discussion leader.

It is interesting to note the change in emphasis in the requests for consultation. During 1961 there has been considerable concentration on modified diets and their relationship to the chronic diseases. Requests in this area have included many classes or meetings with community groups; for example, 32 meetings were held in one county alone for heart patients and others concerned with low sodium, low fat and weight control diets. The attendance for these was 400. In other areas of chronic diseases, 54 group conferences and 237 individual conferences were held. With the increased interest in home care programs and in rehabilitation, there has also been increased emphasis on the place of diet in the prevention and care of many chronic diseases. There are also constant advances in our

knowledge of nutrition in this area, and this means time must be provided for the nutrition staff to keep abreast of the wealth of new material and research being presented.

In maternal and child health, many new developments contributed to heightened interest on the part of county health departments. With more consideration being given to problems of the mentally retarded, there were numerous requests for information on diet in phenylketonuria, galactosemia and other diseases related to mental retardation. Consultation to parents of children diagnosed as having phenylketonuria has been provided on an individual basis since acceptance and understanding of the diet and the problems involved is essential for control of the condition. In other services to prenatales, well children and crippled children, 51 group conferences and 203 individual ones were held. Twenty-four classes were taught and demonstrations given for 487 persons.

The nutritionist with the migrant project, along with other members of the team, completed the five-year project in the Belle Glade area of Palm Beach County. Reports on this project have been compiled and made available in summary form from the entire team. The special study on dietary patterns of selected families was published in the April issue of *Public Health Reports*. A further interpretation of general dietary findings concerning migrants was presented at the annual meeting of the American Public Health Association to the Food and Nutrition Section. Plans are now underway for the new migrant project which will enlarge the area previously covered by the project team.

Working with *community groups* and organizations, a number of talks and demonstrations were given on normal nutrition, dietary practices as shown by surveys in the community, low cost foods, foods for civil defense, weight control and food fads and fallacies. Such presentations were given for PTA groups, civic clubs, scout groups, home demonstration groups and other local organizations.

In considering services to other *agencies* and organizations, school services head the list. Increased interest was noted on the part of school administrators in developing a nutrition program for all grades. Assistance has been given in planning nutrition education to meet the needs and capabilities of each grade, one through 12, with the overall purpose of developing good food habits which will be lasting for each individual. Much time and effort has been spent in fitting plans to local conditions so that the program will be practical rather than merely theory. Eighty-eight group conferences and 121 individual conferences were held with school personnel. Fifteen dietary surveys were conducted in schools, providing valuable information on food habits and activities to assist in planning nutrition education programs.

In working with school lunch personnel, more emphasis is now being placed on working with local resource people who are qualified to offer courses in nutrition rather than the nutritionist actually teaching. However, there are some areas where no qualified local people are available and the nutritionists are still providing class instruction when necessary.

Work was completed on a joint project with the Crippled Children's Commission to provide diet instruction guides for use in their clinics throughout the state. When the annual meeting of the Commission's personnel was held, time was given for the nutrition director to introduce and explain the guides.

In cooperation with local heart associations and the Florida Heart Association, classes have been taught and counseling provided for heart patients and their families.

Working with county and state welfare personnel, consultation has been provided on normal nutrition, special diet problems and low cost food budgets. Work was completed on an average state price index for food, providing an easy reference to the amount and kind of food needed by each age group and the average cost of such food. This index will be revised annually to keep prices up-to-date.

In the service to *institutions*, this year saw the organization of a dietary consultation program for nursing homes. This much needed service is still in the introductory stages. However, the reception has been excellent and plans are underway for broadening the scope of the program as much as possible in the coming year. It will take some time to actually investigate the existing dietary practices and procedures and to develop a workable answer to the problems that exist. It is anticipated that general aids for menu planning, purchasing, food cost control, etc., can be developed and made available statewide. Group or district meetings can be utilized for instruction and help in the use of such materials as well as individual consultation. Serving good food that is nutritionally adequate and reasonable in cost and acceptable to the residents in the nursing homes is the goal of this service. This is, indeed, a long-range objective and one that will entail considerable wear and tear on all concerned. However, with the number of nursing homes in the state now and with this number constantly growing, the number of persons who eat all their meals in such an institution is extremely large. It is particularly important that we do everything possible to see that these people have good food available and are as well nourished as possible since they seldom have a choice of food except that provided by the institution. The dietary consultant is also providing consultation to the regional nutritionists on institutional food service problems so that the service can be extended as much as possible. Plans are also underway for the revision of the diet manual for nursing homes.

In the area of training, field experience was offered to one graduate nutrition student from the University of Michigan School of Public Health and one undergraduate from Florida State University School of Home Economics.

In addition, classes have been taught and consultation given to schools of nursing, to practical nursing programs, to undergraduates in food and nutrition courses and to health education students.

In reviewing the program, it is obvious there are many facets that are, of necessity, being curtailed. There is much that is being left undone

because of the limited number of nutritionists. A great deal is needed in the realm of information regarding nutritional status in the various age and population groups in Florida. Data that is available at present are extremely sparse. While it serves as a general basis for community planning, it provides little in the way of accurate data for other uses. To help meet the need for concentrated service, a new demonstration project has been planned and approved and will begin in the coming year. This will help to demonstrate what can be done in a rural area (two or three counties) with a full-time nutrition staff member. Another problem is the lack of clerical help. Much professional time is being spent in the performance of necessary clerical duties because sufficient clerical assistance is not provided. When one considers the small number of trained nutritionists to cover the state, it is hard to justify any portion of that time spent on duties that could be performed by clerical personnel, thus leaving all available time for professional duties. Another serious gap is the lack of dietary consultation for publicly supported institutions and small hospitals where there is no trained dietitian on the staff. There is a need for a position for a general dietary consultant whose services would be available statewide. There is also a need for someone to work more closely with the training institutions in providing basic nutrition information for those who will be our doctors, nurses and other allied professional personnel.

In our plans for the immediate future, it is anticipated that more time will be spent on inservice training, particularly with new health department personnel. Plans are also underway for preparing a series which will be ready reference material for use in diet problems on the expanded home care services. Some thought is also being given to making each nutrition consultant responsible for a special portion of the program in addition to her district. During the coming year it is our aim to make nutrition as meaningful as possible in the overall health program of the state.

TABLE 7
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	A. COMMUNICABLE DISEASE CONTROL									
	Admissions to Service	Field and Office Visits	Hookworm Treatments Given	IMMUNIZATIONS COMPLETED						
				Smallpox	Diphtheria	Whooping Cough	Tetanus	Poliomyelitis	Typhoid	Rabies—Humans
	1	2	3	4	5	6	7	8	9	10
Total 1961.....	7237	12352	11245	85970	142455	88040	204590	276848	78751	54
Alachua.....	87	118	125	1669	2099	1595	2746	5674	1055	0
Baker.....	7	7	100	629	669	451	1761	2233	1348	0
Bay.....	56	99	116	885	1908	1908	4177	7314	7118	0
Bradford.....	114	187	38	258	560	332	782	1428	130	0
Brevard.....	53	90	53	1499	4298	1898	4836	6123	891	12
Broward.....	275	396	2	1827	4698	2900	5628	5779	216	0
Calhoun.....	1	1	51	239	318	264	756	1389	840	0
Charlotte.....	140	604	63	668	1688	481	1972	2160	46	0
Citrus.....	19	19	55	114	522	190	671	1198	411	0
Clay.....	63	102	76	194	526	285	652	816	12	404
Collier.....	84	151	57	289	989	504	1403	3699	325	0
Columbia.....	0	0	1638	836	4688	4688	5791	4293	4221	0
Dade.....	172	885	1	19869	12727	12626	23370	19513	1154	0
DeSoto.....	25	52	26	289	653	340	691	1886	13	0
Dixie.....	50	94	141	90	646	426	774	957	895	0
Duval.....	22	34	10	1603	4467	2826	5895	9179	338	0
Escambia.....	35	78	255	4644	11729	6382	15850	15368	7282	0
Flagler.....	71	71	4	74	258	158	362	638	11	0
Franklin.....	8	14	52	133	222	222	322	566	2165	0
Gadsden.....	75	146	69	4190	4952	1514	8091	13818	5135	1
Gilchrist.....	38	49	221	24	136	91	237	538	24	0
Glades.....	16	24	43	36	253	87	261	339	97	124
Gulf.....	18	38	791	617	1871	1184	1910	2717	2049	0
Hamilton.....	0	0	435	95	489	433	682	1027	291	167
Hardee.....	237	253	242	300	744	378	885	1446	348	0
Hendry.....	14	23	41	105	698	240	725	945	497	94
Hernando.....	0	0	142	280	563	186	1062	1239	2	0
Highlands.....	74	117	24	180	750	347	763	1258	53	0
Hillsborough.....	1957	2166	199	8188	11897	7735	17079	26854	557	12
Holmes.....	60	89	745	410	931	468	1196	1686	770	0
Indian River.....	2	9	19	387	760	452	1043	1427	660	0
Jackson.....	116	138	383	1632	2257	1334	4318	5403	2215	0
Jefferson.....	61	134	59	1114	1078	654	2158	2748	1195	3
Lafayette.....	109	109	19	38	85	64	146	194	32	0
Lake.....	39	109	44	144	676	376	711	1174	1	0
Lee.....	92	189	80	1497	1872	826	3530	4917	1484	0
Leon.....	257	480	722	2016	1776	1745	3339	5353	2029	0
Levy.....	33	36	84	382	901	251	1191	1781	686	0
Liberty.....	5	12	190	104	360	180	781	755	429	0
Madison.....	81	94	109	1066	1065	403	1702	2375	682	312
Manatee.....	94	107	13	502	659	324	1029	3742	145	2
Marion.....	145	294	312	2001	3796	1461	7312	9457	8002	0
Martin.....	9	9	4	699	1117	458	1542	2343	912	0
Monroe.....	127	178	0	991	940	276	1818	2045	686	0
Nassau.....	289	378	345	1220	1423	730	2270	3854	3014	4
Okaloosa.....	181	181	251	1796	3445	2129	4550	6845	2750	0
Okeechobee.....	8	15	2	124	351	164	390	1022	183	0
Orange.....	359	811	185	4091	6800	3523	9149	11439	2775	0
Osceola.....	5	47	152	149	774	525	774	2010	519	0
Palm Beach.....	254	745	49	2977	8220	3970	9868	13356	1829	0
Pasco.....	21	24	146	291	1004	977	1081	1528	29	0
Pinellas.....	399	1127	110	2278	5151	3927	5610	8511	300	1
Polk.....	419	630	217	3569	6896	4180	8469	14943	380	6487
Putnam.....	95	127	12	764	1807	528	2330	2980	46	0
St. Johns.....	6	13	27	1356	2121	341	2354	2569	1486	1
St. Lucie.....	1	6	12	62	386	816	745	1029	41	0
Santa Rosa.....	2	18	592	450	1516	1073	2762	3218	1887	0
Sarasota.....	82	101	6	466	1324	929	1463	1737	71	0
Seminole.....	37	117	142	1460	1615	1151	2909	4193	3075	8
Sumter.....	21	24	24	401	791	599	832	1243	319	0
Suwannee.....	14	14	105	270	792	451	1414	1649	537	0
Taylor.....	1	2	63	471	1219	509	1831	2446	458	397
Union.....	6	6	93	52	253	143	266	493	105	0
Volusia.....	83	146	48	346	496	450	542	1602	24	0
Wakulla.....	11	11	149	49	265	264	725	1327	590	0
Walton.....	2	4	263	329	1046	707	1252	1998	341	0
Washington.....	0	0	399	242	969	561	1104	1562	540	0

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	B. VENEREAL DISEASE CONTROL										
	Admissions to Service	Not Infected	Treatment in Clinic (Completed)	Treatment by Private Physician (Completed)	Returned to Clinic	Epidemiological Treatment of Contacts	Dropped or Transferred	Patients Interviewed	Contacts Obtained	Field Visits	Office Visits
	1	2	3	4	5	6	7	8	9	10	11
Total 1961.....	40950	22302	11937	347	1047	3044	166	5883	11063	27556	82591
Alachua.....	266	16	215	0	24	10	0	49	12	65	266
Baker.....	6	1	3	1	0	0	0	3	2	8	9
Bay.....	254	105	136	0	0	13	0	75	101	226	278
Bradford.....	65	13	43	3	1	2	1	47	48	50	91
Brevard.....	88	10	2	33	3	8	10	47	12	156	116
Broward.....	795	170	333	23	66	37	36	409	485	1173	1438
Calhoun.....	9	1	7	0	0	0	0	6	5	1	11
Charlotte.....	4	0	2	3	0	0	0	1	3	24	4
Citrus.....	0	0	0	0	0	0	0	0	0	0	0
Clay.....	21	10	5	1	1	0	0	4	2	14	24
Collier.....	144	20	44	2	9	44	4	37	49	116	226
Columbia.....	98	0	54	0	0	40	0	57	42	84	89
Dade.....	10515	7048	2363	0	340	764	0	1366	3372	9137	36950
DeSoto.....	3	0	0	2	0	0	0	1	2	2	4
Dixie.....	5	0	5	0	1	0	0	4	4	2	6
Duval.....	14223	11003	2070	0	52	1096	0	628	1671	3431	18396
Escambia.....	2316	1057	1205	0	13	41	0	95	480	1162	2461
Flagler.....	16	6	5	0	0	0	0	10	6	12	27
Franklin.....	14	5	3	5	0	1	0	8	1	6	27
Gadsden.....	123	6	106	0	0	11	0	40	43	86	184
Gilchrist.....	2	0	2	0	0	0	0	2	1	1	3
Glades.....	7	3	4	0	0	0	0	3	3	3	11
Gulf.....	14	8	2	4	0	0	0	2	10	12	26
Hamilton.....	18	1	11	0	3	3	0	2	3	1	21
Hardee.....	17	16	1	0	0	0	0	13	0	12	10
Hendry.....	37	19	12	5	0	0	1	8	8	3	49
Hernando.....	7	2	5	0	0	0	0	1	1	2	18
Highlands.....	31	0	11	2	18	1	0	18	5	8	42
Hillsborough.....	4370	959	1542	8	3	174	1	763	1412	3679	10136
Holmes.....	7	0	5	0	1	0	0	6	5	1	17
Indian River.....	38	0	29	0	1	3	0	28	20	6	39
Jackson.....	30	1	27	0	1	2	0	22	14	12	33
Jefferson.....	33	5	16	1	2	7	0	9	13	16	56
Lafayette.....	0	0	0	0	0	0	0	0	0	0	0
Lake.....	28	3	0	18	1	0	1	2	1	21	33
Lee.....	86	10	52	0	9	9	0	64	22	7	113
Leon.....	1059	176	661	7	89	116	13	72	139	386	1342
Levy.....	15	3	4	0	2	5	0	4	3	7	18
Liberty.....	5	0	4	1	2	0	0	4	1	4	7
Madison.....	19	0	16	0	0	9	0	19	13	8	37
Manatee.....	372	102	159	7	41	45	26	140	236	179	465
Marion.....	724	202	254	8	14	79	7	183	325	871	1330
Martin.....	73	20	28	9	0	18	2	38	34	47	35
Monroe.....	121	18	60	2	2	39	0	46	35	120	211
Nassau.....	19	15	14	8	8	6	2	8	3	17	77
Okaloosa.....	100	2	70	0	17	9	2	72	62	4	108
Okeechobee.....	17	0	10	0	0	1	0	6	4	12	24
Orange.....	985	144	579	3	75	183	1	275	1010	2185	2443
Osceola.....	40	0	29	0	0	16	0	28	72	32	169
Palm Beach.....	1412	651	530	3	117	111	0	227	348	1582	1638
Pasco.....	13	1	9	1	2	0	0	6	3	3	16
Pinellas.....	737	126	376	150	21	61	17	252	357	1806	1092
Polk.....	472	138	221	16	2	4	11	29	28	120	584
Putnam.....	196	51	100	2	24	19	0	125	75	53	248
St. Johns.....	211	17	96	9	30	30	25	117	81	23	271
St. Lucie.....	46	1	40	0	2	3	0	37	15	36	54
Santa Rosa.....	9	1	6	0	1	0	0	0	3	0	18
Sarasota.....	181	90	96	0	4	2	0	96	209	212	350
Seminole.....	128	6	59	7	24	5	0	48	36	124	218
Sumter.....	31	2	23	0	6	0	0	29	9	12	65
Suwannee.....	26	7	12	0	0	0	0	10	7	14	40
Taylor.....	73	14	47	3	0	12	0	46	28	29	78
Union.....	4	1	3	0	0	0	0	1	1	2	11
Volusia.....	114	8	79	2	10	4	6	91	39	116	357
Wakulla.....	14	0	3	0	4	2	0	10	8	1	14
Walton.....	20	2	11	2	1	4	0	10	8	10	31
Washington.....	24	6	18	0	0	0	0	24	13	0	26

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	C. TUBERCULOSIS CONTROL							
	Admitted to Service			Persons X-rayed		Tuberculin Tests	Field Visits	Office Visits
	Active Cases	Inactive Cases	Contacts and Suspects	Miniature Films	14" x 17" Film			
	1	2	3	4	5	6	7	8
Total 1961	2426	6541	17823	448362	45289	59063	39657	47090
Alachua	23	66	335	8526	439	551	975	581
Baker	3	4	18	0	37	6	23	15
Bay	15	59	95	0	378	17	94	214
Bradford	11	34	66	0	187	75	351	90
Brevard	33	70	299	0	3155	607	688	937
Broward	138	319	872	43460	1017	6004	3865	1173
Calhoun	11	9	26	0	315	47	26	133
Charlotte	3	12	33	0	735	240	230	87
Citrus	5	6	24	0	1540	15	27	62
Clay	11	20	50	231	95	73	132	141
Collier	16	33	169	4684	95	1468	510	408
Columbia	5	13	39	0	64	7	73	53
Dade	445	1133	5297	56100	6564	1717	5002	15884
DeSoto	4	14	20	0	513	11	91	98
Dixie	0	4	3	1234	16	11	38	45
Duval	157	802	455	3958	2546	544	790	2121
Escambia	104	247	589	8715	1052	498	3481	306
Flagler	1	6	8	0	138	487	352	167
Franklin	2	8	14	0	73	15	25	38
Gadsden	15	39	167	1863	49	615	453	176
Gilchrist	2	2	16	0	8	10	29	11
Glades	0	3	3	752	33	1	8	6
Gulf	0	16	37	0	498	20	79	40
Hamilton	4	7	1	0	11	8	15	50
Hardee	14	11	27	0	580	1099	92	56
Hendry	7	10	29	2008	127	82	72	61
Hernando	6	3	9	1732	22	15	53	14
Hillsborough	15	36	111	0	445	729	111	210
Holmes	335	939	4200	81987	1075	9179	4317	5582
Indian River	6	7	91	0	70	222	40	216
Jackson	9	8	32	0	129	169	115	28
Jefferson	19	54	96	0	398	1402	331	308
Lafayette	5	9	17	1778	18	149	41	10
Lake	2	1	1	370	0	0	12	5
Lee	39	138	319	11005	454	671	1086	335
Leon	28	36	39	15393	452	3294	143	238
Levy	59	83	386	14637	530	1943	1593	871
Liberty	1	26	56	2092	51	38	114	56
Madison	0	0	3	0	0	0	3	2
Manatee	8	30	34	0	50	30	45	102
Marion	36	42	85	6147	215	160	238	201
Martin	21	61	68	11487	526	1408	419	50
Monroe	16	27	65	0	100	114	160	40
Nassau	18	37	82	0	1241	176	278	125
Okaloosa	12	25	95	0	108	108	343	139
Okeechobee	5	14	20	0	1971	1512	160	150
Orange	7	13	17	0	30	263	72	41
Osceola	188	213	458	72662	1083	2652	1788	2709
Palm Beach	7	11	12	0	66	70	99	152
Pasco	168	317	432	33126	1713	813	2069	767
Pinellas	20	62	116	3735	131	52	130	367
Polk	92	422	633	29507	2569	1197	2139	5693
Putnam	100	435	840	23997	1605	7347	2499	2714
St. Johns	10	43	72	0	1135	2083	220	60
St. Lucie	13	16	15	0	289	1375	177	192
Santa Rosa	26	57	38	0	176	70	448	184
Sarasota	8	23	56	1	400	5708	129	105
Seminole	19	70	67	4859	422	85	642	546
Sumter	17	42	159	0	418	408	337	715
Suwannee	9	18	44	1994	105	132	120	182
Taylor	8	26	26	0	49	23	91	103
Union	0	10	22	0	42	66	52	66
Volusia	2	3	5	0	22	0	8	46
Wakulla	53	188	240	0	6809	622	1311	625
Walton	5	5	28	0	17	37	94	11
Washington	2	28	32	322	69	508	71	113
	3	16	11	0	19	15	28	74

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	D. MATERNITY SERVICE										E. CHILD HEALTH SERVICES		
	Patients admitted to Maternity Medical Service	Visits by Ante-partum Cases to Medical Confer.	Patients Admitted to Maternity Nursing Service	Field Nursing Visits	Office Nursing Visits	Number of Midwife Meetings	Visits for Midwife Supervision	Midwife Del. supervised by health department personnel	Ind. Enrolled in Classes for Expectant Parents	Admissions to Well Child Med. Service			
										Infants	Ages 1-4	Age 5 and over	
1-2	3	5	6	7	8	9	10	11	1a, 2a	1b, 2b	1c, 2c		
Total 1961.....	14719	43515	21881	44358	58420	212	1324	11	440	14684	14698	9316	
Alachua.....	162	391	822	1170	1275	0	53	0	80	260	86	161	
Baker.....	15	25	66	100	25	0	4	0	0	0	5	1	
Bay.....	145	145	158	298	208	0	14	0	0	117	11	4	
Bradford.....	79	157	73	360	34	0	19	0	0	66	114	59	
Brevard.....	175	502	343	685	985	31	48	3	1	84	21	47	
Broward.....	323	748	452	1421	886	26	23	1	0	545	44	12	
Calhoun.....	8	7	29	7	64	0	6	0	0	3	1	0	
Charlotte.....	0	0	18	26	5	0	0	0	0	7	3	33	
Citrus.....	5	7	3	8	3	0	0	0	0	1	1	0	
Clay.....	96	264	131	482	289	1	6	0	0	25	11	53	
Collier.....	119	391	156	155	974	0	27	0	0	72	27	35	
Columbia.....	138	138	176	362	386	12	55	0	0	91	104	105	
Dade.....	2351	7743	4063	12075	7563	10	50	0	65	5452	7170	3116	
DeSoto.....	0	0	0	0	0	0	0	0	0	0	0	0	
Dixie.....	17	25	35	54	85	0	31	1	0	1	1	40	
Duval.....	1	1	153	180	99	0	0	0	17	333	104	172	
Escambia.....	924	1875	1140	2174	2612	0	26	0	103	426	114	1	
Flagler.....	82	270	87	108	319	0	0	0	0	65	7	2	
Franklin.....	16	31	18	30	43	0	5	0	0	3	0	0	
Gadsden.....	682	1355	937	929	1839	10	200	0	0	317	205	57	
Gilchrist.....	12	27	22	43	14	1	0	0	0	0	0	0	
Glades.....	19	43	32	47	60	0	1	0	0	6	1	4	
Gulf.....	26	47	42	76	99	0	10	0	0	0	0	0	
Hamilton.....	48	80	128	449	346	2	4	0	0	0	0	0	
Hardee.....	37	145	63	74	198	0	0	0	0	14	2	2	
Hendry.....	54	175	17	108	47	0	0	0	0	68	30	41	
Hernando.....	5	5	7	7	6	0	2	0	0	0	0	0	
Highlands.....	16	31	1	2	0	0	0	0	0	18	13	1	
Hillsborough.....	2569	9155	3137	5193	11425	0	9	0	0	3149	4365	3811	
Holmes.....	6	15	21	9	35	0	3	0	0	4	22	9	
Indian River.....	0	0	92	151	118	0	3	0	0	0	0	0	
Jackson.....	151	213	353	592	938	9	146	2	0	88	35	29	
Jefferson.....	48	114	99	313	134	0	0	0	0	67	44	4	
Lafayette.....	12	12	27	75	84	0	11	0	0	0	0	1	
Lake.....	135	295	219	353	347	0	32	0	0	50	4	0	
Lee.....	205	239	380	392	968	6	8	0	0	107	0	1	
Leon.....	205	754	342	1397	826	14	43	0	0	127	265	177	
Levy.....	80	224	79	52	209	3	12	0	0	12	5	3	
Liberty.....	13	26	22	14	32	4	15	0	0	10	10	9	
Madison.....	61	172	136	340	223	4	0	0	0	14	10	37	
Manatee.....	139	598	199	423	663	1	4	0	8	141	132	171	
Marion.....	0	0	74	198	6	8	28	0	0	0	0	0	
Martin.....	0	0	1	2	0	0	0	0	0	0	0	0	
Monroe.....	61	142	136	215	220	8	9	1	0	6	14	1	
Nassau.....	6	6	35	58	20	11	54	0	0	1	0	11	
Okaloosa.....	25	27	83	102	102	0	6	0	0	8	5	18	
Okeechobee.....	0	0	0	0	0	0	0	0	0	0	0	0	
Orange.....	1461	2776	1376	867	3272	17	6	0	0	247	68	84	
Osceola.....	96	413	101	191	470	6	2	0	0	81	60	0	
Palm Beach.....	560	2102	1023	3028	2570	4	1	0	84	417	77	50	
Pasco.....	37	44	62	133	95	1	17	0	5	0	2	1	
Pinellas.....	785	3761	958	1450	5020	2	10	0	0	875	944	477	
Polk.....	1231	3657	1613	3476	6682	11	30	2	0	608	75	136	
Putnam.....	255	765	314	354	857	5	21	0	0	130	13	11	
St. Johns.....	22	41	83	113	106	1	2	1	0	3	1	1	
St. Lucie.....	228	737	246	301	999	0	7	0	0	44	2	4	
Santa Rosa.....	0	0	1	11	2	0	0	0	0	3	8	1	
Sarasota.....	138	523	169	754	522	0	0	0	77	0	1	0	
Seminole.....	176	487	420	711	748	5	109	0	0	110	7	4	
Sumter.....	5	5	86	126	102	6	47	0	0	0	0	0	
Suwannee.....	25	43	44	49	112	0	3	0	0	4	2	2	
Taylor.....	52	112	54	107	176	0	17	0	0	23	6	6	
Union.....	52	128	63	30	127	0	0	0	0	69	49	63	
Volusia.....	239	1145	475	1054	1383	0	59	0	0	276	382	240	
Wakulla.....	25	77	45	120	70	2	12	0	0	7	0	0	
Walton.....	12	28	33	55	71	1	13	0	0	4	0	0	
Washington.....	49	51	108	119	222	2	1	0	0	25	15	8	

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	E. CHILD HEALTH SERVICES (Continued)											
	Visits Med. Conferences			Admissions to Nursing Service			Field Nursing Visits			Office Nursing Visits		
	Infants	Ages 1-4	Ages 5-over	Infants	Ages 1-4	Ages 5-over	Infants	Ages 1-4	Ages 5-over	Infants	Ages 1-4	Ages 5-over
	3a	3b	3c	5a	5b	5c	6a	6b	6c	7a	7b	7c
Total 1961.....	29455	25526	12964	27241	33597	67708	51025	57620	63108	37782	39292	148578
Alachua.....	305	118	183	667	740	1462	1328	1354	1431	798	803	1554
Baker.....	0	5	1	80	288	226	145	447	384	18	50	91
Bay.....	396	34	6	169	72	230	572	231	407	403	31	765
Bradford.....	81	132	67	174	346	410	489	1297	868	6	26	189
Brevard.....	115	26	55	404	831	1266	929	1628	2454	239	418	688
Broward.....	1023	106	73	1260	558	1591	2832	1569	2515	446	151	771
Calhoun.....	3	1	0	12	18	45	9	14	41	13	12	27
Charlotte.....	37	3	33	89	54	938	41	72	924	188	43	2889
Citrus.....	1	2	0	28	75	40	49	127	121	1	0	0
Clay.....	42	23	57	175	301	1006	599	658	741	78	94	1155
Collier.....	208	60	54	124	207	250	146	167	232	472	316	310
Columbia.....	91	104	105	186	249	186	188	104	117	147	84	84
Dade.....	12255	13196	4609	5243	7456	9625	13517	18427	10567	10275	11430	67550
DeSoto.....	0	0	0	30	64	619	0	7	158	30	67	543
Dixie.....	1	1	43	50	71	169	79	104	219	15	18	27
Duval.....	825	207	225	896	286	785	723	305	592	1372	411	480
Escambia.....	1240	341	1	1326	442	908	2404	943	1042	1567	386	1961
Flagler.....	105	11	4	109	204	244	182	301	163	104	154	197
Franklin.....	3	0	0	52	78	59	89	127	79	6	8	30
Gadsden.....	344	210	62	872	1910	876	1289	3308	714	386	323	1141
Gilchrist.....	0	0	0	24	72	14	64	108	22	11	19	4
Glades.....	7	1	4	20	25	59	46	62	51	8	0	23
Gulf.....	0	0	0	46	39	44	78	62	50	32	23	32
Hamilton.....	0	0	0	96	29	10	295	237	46	54	9	5
Hardee.....	14	2	2	55	26	91	65	43	274	25	8	66
Hendry.....	98	77	102	66	37	77	125	120	137	101	67	161
Hernando.....	0	0	0	6	74	96	12	100	118	7	8	7
Highlands.....	20	14	1	16	10	88	53	14	74	9	1	62
Hillsborough.....	6176	7492	5250	4717	6781	11230	4048	3023	6038	8501	11551	14179
Holmes.....	4	23	9	15	28	132	7	18	64	16	23	245
Indian River.....	0	0	0	87	27	423	203	104	371	79	13	374
Jackson.....	116	57	38	372	376	150	451	540	399	367	191	107
Jefferson.....	92	50	4	228	539	226	567	1046	385	249	606	161
Lafayette.....	0	0	1	66	112	78	191	208	200	89	109	130
Lake.....	51	4	0	277	484	624	427	665	743	162	209	329
Lee.....	107	0	2	327	206	438	385	231	269	146	66	297
Leon.....	178	368	217	513	1264	1493	1720	4054	2438	342	1140	1335
Levy.....	13	6	3	43	49	105	43	45	138	24	26	46
Liberty.....	10	14	11	14	34	45	15	30	46	8	14	12
Madison.....	20	11	43	161	153	384	405	229	364	35	38	211
Manatee.....	136	158	179	451	740	1972	225	202	432	542	1214	2179
Marion.....	0	0	0	117	69	341	234	204	609	10	1	146
Martin.....	0	0	0	20	81	155	27	93	181	2	18	14
Monroe.....	7	14	1	144	280	557	233	467	363	151	378	982
Nassau.....	1	0	11	38	72	272	65	132	349	9	33	331
Okaloosa.....	9	5	22	89	109	527	194	262	600	53	89	352
Okeechobee.....	0	0	0	1	49	3	2	25	0	0	0	39
Orange.....	369	105	100	759	436	815	1215	1123	1949	1212	541	3297
Osceola.....	191	127	0	130	145	109	157	254	131	203	203	376
Palm Beach.....	905	131	64	984	464	3248	3446	1590	5374	1266	224	7028
Pasco.....	0	2	1	108	166	99	215	340	127	57	77	63
Pinellas.....	1746	1269	531	1251	1878	9998	2823	3157	7570	2500	2894	20297
Polk.....	1022	99	169	1857	2179	5971	3690	3660	3597	3087	2239	6827
Putnam.....	130	15	11	299	205	324	366	392	437	215	197	288
St. Johns.....	3	1	2	68	26	112	122	56	108	36	40	102
St. Lucie.....	77	2	4	203	200	15	354	512	18	133	53	0
Santa Rosa.....	0	8	1	46	33	1123	48	36	403	15	10	1618
Sarasota.....	3	1	0	161	121	569	557	371	1148	3	6	98
Seminole.....	115	7	4	328	233	683	682	442	1015	120	140	1423
Sumter.....	0	0	0	128	93	132	154	95	55	70	52	151
Suwannee.....	4	3	2	112	305	227	220	466	358	194	313	236
Taylor.....	26	6	7	47	71	48	75	88	65	45	52	40
Union.....	111	85	121	95	103	133	56	123	116	112	125	125
Volusia.....	577	767	457	565	750	2313	848	1043	1713	790	880	2838
Wakulla.....	7	0	0	43	40	240	94	134	153	22	13	157
Walton.....	5	0	0	33	70	936	49	52	181	41	60	1317
Washington.....	30	22	12	76	117	41	65	111	36	91	74	16

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	F. SCHOOL HEALTH													
	Pupils Examined by Physician						Screening by Other Health Dept. Personnel							
	Parent Present			Parent Not Present			Visual			Audiometer				Nurse-Teacher Conferences 7
	Number Examined 1a	Referred for Further Diagnosis and Treatment 1b	Completed Referrals 1c	Number Examined 2a	Referred for Further Diagnosis and Treatment 2b	Completed Referrals 2c	Number Examined 3a	Referred for Further Diagnosis and Treatment 3b	Completed Referrals 3c	Number Examined 4a	Referred for Further Diagnosis and Treatment 4b	Completed Referrals 4c		
Total 1961.....	31795	4501	2831	35550	3014	674	357041	32422	11321	146960	5856	1690	105515	
Alachua.....	322	20	6	7	3	3	4475	564	115	1539	442	31	1947	
Baker.....	48	26	1	100	30	0	1034	85	9	3	0	0	126	
Bay.....	80	12	0	11	2	0	10540	821	153	112	49	0	2376	
Bradford.....	207	16	10	97	12	10	111	12	14	0	0	0	337	
Brevard.....	0	0	0	0	0	0	2815	37	34	0	0	0	1070	
Broward.....	1661	226	8	322	26	27	8183	1911	436	2	4	15	4738	
Calhoun.....	0	0	0	0	0	0	120	40	23	26	0	0	104	
Charlotte.....	183	20	0	194	92	3	2706	301	104	768	28	0	992	
Citrus.....	71	4	0	934	35	0	259	23	0	0	0	0	371	
Clay.....	210	30	0	107	12	2	3410	148	32	3	0	4	668	
Collier.....	45	14	4	26	12	12	1457	214	185	829	148	17	814	
Columbia.....	124	22	19	278	36	17	278	14	8	0	0	0	2	
Dade.....	2694	0	0	16056	0	0	60641	6841	2084	27460	589	603	24793	
DeSoto.....	122	41	11	439	132	1	288	25	4	125	14	2	247	
Dixie.....	108	24	0	368	41	10	11	3	12	2	0	0	98	
Duval.....	106	0	0	0	0	0	5797	940	156	4	8	4	2068	
Escambia.....	53	5	0	38	19	19	15846	1961	313	5380	184	90	3153	
Flagler.....	67	0	0	72	4	0	366	69	11	73	18	0	28	
Franklin.....	0	0	0	3	1	0	61	24	2	2	1	0	46	
Gadsden.....	424	88	2	1143	235	0	2089	125	19	508	14	3	1679	
Gilchrist.....	46	4	3	20	5	2	317	35	2	0	0	0	12	
Glades.....	42	15	0	235	27	0	100	10	10	9	1	0	187	
Gulf.....	40	5	5	5	0	0	498	72	64	239	20	16	285	
Hamilton.....	271	9	3	345	1	0	0	0	0	0	0	0	556	
Hardee.....	59	8	7	225	5	5	219	39	38	196	2	2	252	
Hendry.....	35	11	8	358	87	0	72	38	19	36	10	2	430	
Hernando.....	215	11	0	768	47	39	55	10	19	0	0	0	0	
Highlands.....	341	145	0	1392	720	12	64	39	0	37	6	7	57	
Hillsborough.....	2719	1555	1348	4103	724	172	61375	2913	1544	38774	1116	285	11550	
Holmes.....	269	35	0	176	1	0	354	88	2	67	9	1	126	
Indian River.....	0	0	0	3	0	0	5757	288	191	494	22	0	242	
Jackson.....	11	0	0	2	1	0	353	78	7	31	14	0	705	
Jefferson.....	325	13	3	164	33	12	383	18	0	153	3	3	196	
Lafayette.....	33	13	0	43	4	0	2	2	0	0	0	0	66	
Lake.....	721	4	4	193	12	0	2819	525	278	555	88	8	710	
Lee.....	0	0	0	46	0	0	1572	276	54	22	0	0	370	
Leon.....	454	30	0	312	26	1	6291	706	318	4606	372	70	1145	
Levy.....	94	2	2	611	36	0	1502	110	14	1191	17	0	25	
Liberty.....	57	0	0	131	0	8	80	0	6	39	0	0	12	
Madison.....	59	0	0	210	9	3	263	14	11	16	14	0	211	
Manatee.....	221	7	0	24	6	39	2119	356	190	1825	120	5	988	
Marion.....	0	0	0	26	1	0	2564	188	64	81	4	0	1123	
Martin.....	111	2	0	56	5	4	2444	277	69	1	1	0	208	
Monroe.....	65	5	0	422	19	0	6091	349	19	5305	65	3	467	
Nassau.....	215	0	0	1	1	0	267	31	21	1	0	0	467	
Okaloosa.....	666	3	0	390	0	1	622	73	41	3	0	0	888	
Okeechobee.....	90	28	0	2	0	0	643	197	4	685	10	0	59	
Orange.....	120	1	0	93	5	7	22377	1891	732	8712	325	11	4266	
Osceola.....	119	0	0	121	0	0	243	21	16	0	0	0	329	
Palm Beach.....	18	16	0	75	34	1	22164	3300	886	6941	349	52	6656	
Pasco.....	1	0	0	0	0	0	0	0	0	0	0	0	2	
Pinellas.....	15327	1678	1344	1751	312	244	38088	1674	1467	24388	956	317	13183	
Polk.....	657	102	16	178	9	3	21204	1458	809	4348	255	55	8566	
Putnam.....	37	1	1	90	0	0	818	67	20	0	0	0	426	
St. Johns.....	182	95	10	173	41	2	264	51	14	1	0	0	156	
St. Lucie.....	0	0	0	0	0	0	4303	593	32	0	0	0	0	
Santa Rosa.....	323	2	0	632	6	1	1452	36	1	0	0	0	445	
Sarasota.....	11	7	3	124	13	9	8206	484	210	5866	117	28	1649	
Seminole.....	417	60	0	348	82	1	4555	443	107	2479	101	18	1644	
Sumter.....	38	1	0	0	0	0	1986	152	58	3	1	0	197	
Suwannee.....	151	51	1	129	23	0	714	89	21	627	9	5	363	
Taylor.....	18	0	0	260	1	0	0	0	0	0	0	0	60	
Union.....	41	5	1	72	8	1	47	13	1	0	0	0	34	
Volusia.....	230	0	10	248	0	0	11798	1007	152	464	290	18	309	
Wakulla.....	15	0	0	0	0	0	530	27	31	1592	34	15	94	
Walton.....	304	29	1	527	15	0	829	208	64	198	24	0	77	
Washington.....	152	0	0	271	3	3	200	10	10	229	0	0	65	

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	G. DENTAL HEALTH (Dentist only)												
	Dental Inspections				Number Requiring Treatment				Number Completing Treatment	Number Admitted to Clinic for Treatment	Total Fillings	Total Extractions	Topical Applications of Fluoride
	Age 1-4	Age 5-17	Maternity Patients	Other Adults	Age 1-4	Age 5-17	Maternity Patients	Other Adults					
	3	4	5	6	7								
Total 1961.....	67	79910	2	537	21	42116	3	22	9562	19915	50853	17428	306
Alachua.....	0	2536	0	0	0	1752	0	0	136	1069	3039	426	38
Baker.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Bay.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Bradford.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Brevard.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Broward.....	0	2035	0	94	0	1694	0	0	152	530	2340	462	0
Calhoun.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Charlotte.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Citrus.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Clay.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Collier.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Columbia.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Dade.....	0	209	0	257	0	185	0	0	768	5747	19669	3816	0
DeSoto.....	1	103	0	2	1	51	0	0	2	0	0	0	0
Dixie.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Duval.....	0	0	0	0	0	0	0	0	1170	1453	2143	1704	5
Escambia.....	0	338	0	0	0	336	0	0	67	466	606	357	0
Flagler.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Franklin.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Gadsden.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Gilchrist.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Glades.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Gulf.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Hamilton.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardee.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Hendry.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Hernando.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Highlands.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Hillsborough.....	0	14240	0	0	0	8602	0	0	3172	2239	4590	2868	2
Holmes.....	0	311	0	0	0	28	0	0	19	179	128	393	0
Indian River.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackson.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Jefferson.....	0	91	0	0	0	83	0	0	20	83	143	45	2
Lafayette.....	0	420	0	0	0	235	0	0	75	86	305	292	0
Lake.....	0	3276	2	0	0	658	3	0	198	577	2441	422	66
Lee.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Leon.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Levy.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Liberty.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Madison.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Manatee.....	0	8	0	0	0	7	0	0	20	131	116	63	1
Marion.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Martin.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Monroe.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Nassau.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Okaloosa.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Okeechobee.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Orange.....	40	35253	0	0	6	13848	0	0	1151	2165	2386	2001	0
Osceola.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Palm Beach.....	0	3947	0	184	0	2935	0	22	1358	1916	2725	1490	0
Pasco.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Pinellas.....	0	6045	0	0	0	3405	0	0	722	937	4091	692	0
Polk.....	0	5224	0	0	0	4694	0	0	173	1624	2628	1463	1
Putnam.....	12	49	0	0	12	49	0	0	61	61	42	77	0
St. Johns.....	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Lucie.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Santa Rosa.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Sarasota.....	0	1378	0	0	0	718	0	0	1	0	0	0	0
Seminole.....	12	78	0	0	0	32	0	0	0	0	0	0	0
Sumter.....	0	1027	0	0	0	402	0	0	42	241	201	412	0
Suwannee.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Taylor.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Union.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Volusia.....	2	3347	0	0	2	2402	0	0	256	511	3260	455	191
Wakulla.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Walton.....	0	0	0	0	0	0	0	0	0	0	0	0	0
Washington.....	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	H. CHRONIC DISEASES											
	Cancer Service			Orthopedic Service			Diabetes Service			Cardiovascular Renal		
	Admissions	Field Visits	Office Visits	Admissions	Field Visits	Office Visits	Admissions	Field Visits	Office Visits	Admissions	Field Visits	Office Visits
	1	2	3	4	5	6	7	8	9	10	11	12
Total 1961.....	4741	12789	13326	4382	12998	3853	2900	10727	14481	4939	20067	9348
Alachua.....	153	106	199	73	218	111	62	350	81	59	256	83
Baker.....	10	89	19	4	2	3	4	3	4	44	37	182
Bay.....	23	100	3	169	598	32	12	58	4	14	66	0
Bradford.....	68	206	55	62	265	124	12	13	18	52	345	84
Brevard.....	49	213	155	247	893	422	44	148	212	206	434	288
Broward.....	362	644	610	206	632	38	80	348	308	30	62	7
Calhoun.....	5	17	0	19	21	28	6	3	42	2	0	6
Charlotte.....	31	103	15	32	82	81	20	85	97	12	25	7
Citrus.....	3	1	3	8	7	2	8	30	1	10	0	69
Clay.....	48	186	26	51	232	217	24	131	12	102	477	45
Collier.....	64	261	163	30	93	37	16	65	74	27	53	67
Columbia.....	20	6	20	8	8	3	5	0	5	0	0	0
Dade.....	268	1868	168	39	128	29	31	80	9	199	2472	429
DeSoto.....	20	189	48	71	98	182	9	5	73	5	8	4
Dixie.....	7	11	7	27	45	14	11	9	49	22	26	59
Duval.....	1	1	0	8	15	4	6	17	0	5	9	1
Escambia.....	406	1480	979	279	853	15	274	985	756	453	2310	639
Flagler.....	1	1	1	2	4	1	6	19	10	4	29	3
Franklin.....	25	62	17	41	28	67	15	27	52	37	6	86
Gadsden.....	45	94	5	148	410	111	40	32	86	198	941	683
Gilchrist.....	6	3	3	2	2	0	2	7	1	17	8	41
Glades.....	7	11	22	5	11	6	7	25	67	18	48	32
Gulf.....	25	71	42	38	172	63	10	29	27	62	68	175
Hamilton.....	5	1	4	0	0	0	6	1	23	7	0	103
Hardee.....	18	46	18	19	45	46	11	11	22	7	31	1
Hendry.....	13	25	18	18	87	16	17	166	142	37	93	138
Hernando.....	9	22	0	4	10	0	3	5	2	2	0	8
Highlands.....	27	71	19	20	25	14	18	5	24	8	15	8
Hillsborough.....	452	838	3009	661	919	274	843	1705	7709	969	2548	1346
Holmes.....	36	43	57	16	29	60	69	15	419	39	74	97
Indian River.....	17	56	7	42	179	12	28	131	23	7	32	19
Jackson.....	50	189	26	93	149	279	29	60	175	55	90	262
Jefferson.....	14	240	1	10	19	2	33	96	85	18	53	6
Lafayette.....	5	1	5	9	42	11	7	16	22	39	36	86
Lake.....	47	96	26	88	137	63	83	70	21	42	76	33
Lee.....	10	20	2	52	100	102	9	5	8	4	11	14
Leon.....	116	30	262	126	118	116	71	144	229	53	94	33
Levy.....	5	3	4	19	33	4	8	8	12	89	19	260
Liberty.....	21	55	10	22	24	8	7	8	65	201	408	828
Madison.....	31	61	28	36	205	38	40	112	34	417	107	624
Manatee.....	19	40	6	21	52	16	26	65	1	17	71	3
Marion.....	2	4	0	85	269	21	26	65	4	7	1	1
Martin.....	16	26	5	28	58	12	17	38	28	4	7	1
Monroe.....	101	255	45	126	249	57	32	58	59	70	174	55
Nassau.....	6	46	3	29	78	9	15	36	9	16	54	2

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	J. MENTAL HEALTH							Mental Health Conferences
	Admission To Service			Field Visits		Office Visits		
	Children	State Hosp. Patients	Other Adults	With Patients	About Patients	With Patients	About Patients	
	1	2	3	4	5	6	7	
Total 1961.....	6518	3712	3838	10831	14467	22327	25362	12862
Alachua.....	312	130	129	849	446	1606	3083	298
Baker.....	3	1	4	24	48	4	9	36
Bay.....	0	42	5	213	87	2	9	0
Bradford.....	0	26	6	86	54	18	2	2
Brevard.....	283	89	178	352	702	1606	1314	1774
Broward.....	406	22	459	200	125	1755	609	2157
Calhoun.....	21	28	9	30	126	19	23	198
Charlotte.....	66	7	2	83	133	16	74	67
Citrus.....	13	41	5	84	212	84	47	160
Clay.....	63	16	64	188	164	59	78	7
Collier.....	240	6	62	88	116	765	814	309
Columbia.....	0	0	20	13	0	3	4	0
Dade.....	1433	319	290	1090	1665	5368	3513	608
DeSoto.....	40	11	9	10	31	22	51	108
Dixie.....	10	3	4	42	28	4	8	0
Duval.....	246	134	57	176	248	20	282	160
Escambia.....	24	279	166	637	781	215	167	0
Flagler.....	0	4	1	7	1	5	0	1
Franklin.....	33	21	7	42	190	5	14	315
Gadsden.....	21	72	64	218	192	181	48	67
Gilchrist.....	0	0	0	0	0	0	0	0
Glades.....	13	1	3	1	10	6	18	8
Gulf.....	40	11	10	55	147	18	17	231
Hamilton.....	0	1	0	0	0	1	0	0
Hardee.....	58	10	6	7	28	43	84	86
Hendry.....	35	2	8	25	71	34	60	18
Hernando.....	15	24	0	16	89	2	6	171
Highlands.....	11	11	54	58	136	27	113	39
Hillsborough.....	971	265	341	1240	802	2429	3013	419
Holmes.....	28	16	7	18	33	50	56	11
Indian River.....	55	23	30	80	142	100	50	209
Jackson.....	36	61	15	119	271	21	77	312
Jefferson.....	2	11	0	21	25	7	2	0
Lafayette.....	0	0	2	12	1	0	0	0
Lake.....	24	37	5	39	75	10	29	0
Lee.....	54	66	33	88	171	97	403	123
Leon.....	262	81	369	288	215	2538	1030	261
Levy.....	8	26	15	45	86	27	27	33
Liberty.....	2	7	15	24	41	28	10	4
Madison.....	0	14	5	40	28	15	17	1
Manatee.....	34	42	139	201	642	68	212	203
Marion.....	91	266	117	272	289	89	351	367
Martin.....	44	6	20	12	54	49	201	40
Monroe.....	72	21	98	235	548	100	205	391
Nassau.....	14	13	16	45	122	19	36	140
Okaloosa.....	103	25	15	214	427	17	64	197
Okeechobee.....	20	5	1	3	9	65	116	14
Orange.....	671	142	97	422	331	774	2107	52
Osceola.....	16	2	5	18	39	26	15	24
Palm Beach.....	37	414	137	582	937	209	733	354
Pasco.....	10	25	10	68	97	45	34	1
Pinellas.....	33	333	177	638	868	134	427	245
Polk.....	295	226	162	507	723	1387	1684	525
Putnam.....	5	18	13	47	59	34	11	1
St. Johns.....	1	14	5	32	10	18	12	13
St. Lucie.....	192	11	119	4	37	1252	1134	191
Santa Rosa.....	20	8	12	28	79	35	60	17
Sarasota.....	32	40	131	357	241	321	980	542
Seminole.....	89	11	17	115	766	106	594	403
Sumter.....	19	14	1	13	48	47	68	0
Suwannee.....	10	14	22	46	38	29	21	1
Taylor.....	4	13	1	19	13	19	5	2
Union.....	0	1	3	4	3	1	0	0
Volusia.....	119	91	52	252	246	248	1052	816
Wakulla.....	31	8	7	35	76	13	12	130
Walton.....	9	31	0	53	44	59	46	0
Washington.....	2	0	2	1	1	3	1	0

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	K. MISCELLANEOUS							M. NURSING HOMES	
	Admissions to Morbidity Serv.	Morbidity Visits Field & Office	Gen. Medical Examinations	Health Cards Issued	Vital Statistics Visits	Civil Defense Visits & Conf.	Accident Visits	Nursing Homes Adm. to Service	Nursing Home Visits
	1	2	3	4	5	6	7	1	2
Total 1961.....	10707	45772	90077	200079	2460	1564	1582	418	5515
Alachua.....	377	723	358	3728	8	7	105	1	56
Baker.....	52	194	0	118	15	15	0	0	0
Bay.....	40	116	0	2171	97	10	20	2	49
Bradford.....	187	590	100	248	53	7	1	1	3
Brevard.....	469	746	75	2878	63	21	68	21	28
Broward.....	235	640	864	18884	144	136	68	21	165
Calhoun.....	41	102	71	91	17	3	0	0	0
Charlotte.....	37	424	33	438	9	34	0	0	0
Citrus.....	20	123	40	341	5	0	0	0	0
Clay.....	249	427	38	273	141	40	1	2	4
Collier.....	183	678	100	725	7	9	0	0	0
Columbia.....	309	506	50	275	4	0	0	1	1
Dade.....	70	526	80213	20292	49	18	392	50	1084
DeSoto.....	22	101	16	452	21	21	0	0	0
Dixie.....	38	217	39	268	123	3	1	0	0
Duval.....	41	75	0	5615	0	3	170	37	584
Escambia.....	316	3506	652	11129	12	34	96	8	55
Flagler.....	80	386	88	277	42	0	0	0	0
Franklin.....	19	48	5	550	7	0	0	0	0
Gadsden.....	122	853	251	1144	628	48	0	0	0
Gilchrist.....	107	362	103	85	2	0	0	0	0
Glades.....	94	651	43	339	210	4	0	0	0
Gulf.....	35	96	13	339	2	0	0	0	0
Hamilton.....	329	675	17	339	2	21	0	1	7
Hardee.....	31	110	6	437	2	5	0	0	0
Hendry.....	178	903	25	362	11	5	0	3	14
Hernando.....	9	24	161	308	1	0	0	3	3
Highlands.....	38	49	21	496	16	6	293	36	1385
Hillsborough.....	1014	4632	709	41907	2	105	293	36	1385
Holmes.....	76	109	97	203	2	0	0	2	8
Indian River.....	51	167	11	539	0	1	0	2	25
Jackson.....	24	62	0	528	54	0	0	0	0
Jefferson.....	38	139	44	243	5	1	0	1	17
Lafayette.....	28	65	2	15	4	0	0	0	0
Lake.....	48	108	21	1217	12	0	0	7	31
Lee.....	119	219	116	3667	2	7	0	6	24
Leon.....	257	577	43	2849	14	0	0	2	6
Levy.....	73	313	212	613	6	1	8	3	8
Liberty.....	69	422	35	74	5	0	0	0	0
Madison.....	78	235	47	156	14	1	0	0	0
Manatee.....	90	404	225	4489	7	13	49	13	53
Marion.....	3	22	1183	2151	201	54	10	3	32
Martin.....	12	21	0	0	27	45	0	1	5
Monroe.....	263	565	16	1558	27	59	0	3	7
Nassau.....	99	231	6	559	106	48	1	0	0
Okaloosa.....	158	1783	43	1602	25	2	0	0	8
Okeechobee.....	13	33	0	244	0	19	0	0	0
Orange.....	95	263	47	3000	21	12	107	43	180
Osceola.....	21	107	22	818	0	0	0	8	55
Palm Beach.....	523	1749	300	9791	10	0	86	17	63
Pasco.....	83	231	0	1373	1	4	0	10	118
Pinellas.....	1280	10274	345	28924	0	256	0	41	427
Polk.....	1117	2432	144	7358	62	166	51	22	268
Putnam.....	198	1012	244	941	4	32	0	4	12
St. Johns.....	28	79	0	777	3	5	0	3	6
St. Lucie.....	1	1	0	919	9	28	0	4	43
Santa Rosa.....	90	279	137	494	0	54	2	0	0
Sarasota.....	153	1365	113	2541	33	13	91	14	113
Seminole.....	47	161	2	723	15	4	2	9	54
Sumter.....	44	103	7	393	3	13	0	1	7
Suwannee.....	153	1088	5	211	8	15	0	1	14
Taylor.....	107	155	11	510	17	3	0	0	0
Union.....	105	250	35	59	8	0	0	0	0
Volusia.....	288	2067	2164	5222	49	152	27	22	478
Wakulla.....	24	55	12	335	8	0	0	0	0
Walton.....	86	99	81	523	1	0	0	0	0
Washington.....	19	44	216	230	6	6	0	1	15

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	P. SANITATION										
	App. Water Supplies Installed		New Specification Privies Installed	Percolation Water Tables or Soil Log Test	Subdivision Analysis	Pollution Survey	New Specification Septic Tanks Installed	Rabies—Animal Bites Investigated	Rabies Investi- gation Field Visits	Complaints Investigated	Nuisances Corrected
	Private and Semi-Public	New Public Connections									
Total 1961.....	3364	7645	539	18242	566	1646	27938	15465	48501	37450	20041
Alachua.....	12	20	0	918	10	61	408	351	603	433	258
Baker.....	0	0	0	0	0	0	23	15	21	39	26
Bay.....	27	2	0	205	5	4	192	54	96	162	87
Bradford.....	0	0	0	33	2	0	103	36	83	60	39
Brevard.....	0	17	1	2998	51	556	2368	411	884	1059	357
Broward.....	129	12	2	64	39	250	3264	1265	3149	1982	1236
Calhoun.....	0	0	3	0	0	0	42	7	8	11	9
Charlotte.....	1	3	2	17	5	55	296	47	66	191	16
Citrus.....	0	0	0	19	0	3	16	4	11	57	13
Clay.....	8	4	3	258	1	0	58	64	262	52	26
Collier.....	4	3	0	20	1	0	199	41	79	91	37
Columbia.....	3	2	2	13	0	0	408	56	94	29	23
Dade.....	2	18	0	5	49	5	2	3500	12205	7114	4647
DeSoto.....	0	1	2	42	3	2	32	48	57	64	10
Dixie.....	0	0	0	24	1	1	12	9	6	18	8
Duval.....	906	4180	285	1090	4	2	473	1030	1030	3139	1039
Escambia.....	390	794	3	83	7	14	1234	1160	3945	3476	2191
Flagler.....	0	0	0	71	2	0	44	14	25	3	3
Franklin.....	0	3	0	30	0	0	6	9	27	116	37
Gadsden.....	40	327	96	17	0	42	117	19	26	63	161
Gilchrist.....	0	0	3	0	0	0	90	8	8	1	1
Glades.....	1	3	8	0	0	1	16	23	43	15	14
Gulf.....	5	485	0	40	0	0	48	5	7	7	2
Hamilton.....	0	0	23	14	0	0	30	6	13	16	14
Hardee.....	1	0	0	2	0	0	88	25	48	34	4
Hendry.....	43	161	3	26	11	1	106	17	39	104	36
Hernando.....	0	0	1	12	0	0	22	3	5	93	15
Highlands.....	53	2	0	2	24	0	601	63	124	98	55
Hillsborough.....	758	940	32	509	75	12	1948	2340	15747	2587	2908
Holmes.....	1	0	15	31	0	0	24	14	17	20	7
Indian River.....	4	17	2	183	3	1	103	15	51	274	52
Jackson.....	0	1	0	9	0	0	22	11	22	14	1
Jefferson.....	2	2	5	1	0	6	10	9	12	44	23
Lafayette.....	0	1	0	14	0	0	7	1	2	3	2
Lake.....	1	0	0	161	28	3	897	19	41	112	37
Lee.....	0	0	0	0	0	16	567	79	116	92	53
Leon.....	2	0	0	39	0	160	366	222	845	335	142
Levy.....	0	0	0	27	7	9	79	16	28	18	11
Liberty.....	0	0	0	3	2	2	11	0	0	2	0
Madison.....	0	0	0	8	0	0	8	6	20	9	4
Manatee.....	8	1	0	117	11	3	101	169	308	503	343
Marion.....	226	6	0	185	40	3	437	126	234	990	570
Martin.....	2	2	0	367	4	4	352	13	19	46	23
Monroe.....	0	0	0	0	0	33	362	120	186	216	178
Nassau.....	1	4	0	21	0	16	119	26	40	88	16
Okaloosa.....	5	0	0	177	4	2	186	134	134	191	69
Okeechobee.....	13	0	1	92	0	0	106	28	65	35	23
Orange.....	4	86	0	3930	48	278	2322	922	1349	5185	1409
Osceola.....	0	3	0	40	43	0	164	78	169	117	22
Palm Beach.....	1	5	0	61	9	4	2263	361	54	1383	717
Pasco.....	3	4	1	46	1	1	53	8	53	98	39
Pinellas.....	59	39	6	3664	11	19	2019	585	1582	3718	1485
Polk.....	8	3	7	1289	3	0	1499	725	1143	668	341
Putnam.....	14	7	3	78	5	3	198	36	66	84	35
St. Johns.....	1	0	1	28	0	3	85	14	9	127	34
St. Lucie.....	1	3	3	227	1	2	389	112	309	133	132
Santa Rosa.....	0	0	0	14	0	1	47	93	187	68	12
Sarasota.....	573	457	5	502	28	36	1093	374	1602	682	547
Seminole.....	38	1	0	219	17	19	408	164	193	481	106
Sumter.....	0	0	0	13	0	0	54	20	58	24	18
Suwannee.....	0	0	3	12	0	1	26	5	7	4	2
Taylor.....	2	11	0	13	0	0	31	13	36	25	20
Union.....	0	0	10	0	0	1	51	3	7	3	2
Volusia.....	6	2	8	198	11	1	1138	257	759	355	198
Wakulla.....	0	0	0	9	0	0	2	11	15	45	1
Walton.....	5	13	0	1	0	10	79	18	22	108	68
Washington.....	8	0	0	1	0	0	14	28	30	36	27

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	P. SANITATION—FIELD VISITS									
	Private Premises	Public Premises	Camps	Schools	Swimming Pools	Bottled Water Plants	Public Water Systems	Public Sewerage Systems	Tourist and Trailer Parks	Child Care Centers
	12	13	14	15	16	17	18	19	20	21
Total 1961.....	200849	89522	6262	5469	15793	280	10935	6776	9484	5023
Alachua.....	1502	1750	44	77	75	4	51	52	127	89
Baker.....	440	66	0	24	0	0	82	2	6	0
Bay.....	1233	153	0	27	227	0	158	78	164	0
Bradford.....	3	71	14	1	25	0	13	14	0	0
Brevard.....	5747	4131	85	41	83	11	155	411	120	3
Broward.....	8170	3072	276	236	2364	68	545	897	520	416
Calhoun.....	78	40	0	47	0	0	50	0	0	0
Charlotte.....	744	553	1	50	14	0	33	24	48	2
Citrus.....	370	21	23	37	9	0	102	19	0	0
Clay.....	240	351	50	86	9	0	82	21	138	0
Collier.....	119	598	439	21	50	0	11	6	69	0
Columbia.....	1708	99	3	8	7	0	9	12	1	2
Dade.....	26806	25703	3307	612	6289	58	135	201	727	614
DeSoto.....	278	448	3	86	0	0	38	7	6	0
Dixie.....	14	39	1	8	0	0	25	4	0	0
Duval.....	10259	2238	16	127	26	2	21	268	190	294
Escambia.....	14031	10303	24	224	410	0	273	329	384	257
Flagler.....	119	41	43	9	0	0	32	0	4	0
Franklin.....	618	142	17	27	0	0	70	79	3	0
Gadsden.....	582	78	31	115	20	0	186	35	28	1
Gilchrist.....	642	0	0	0	0	0	0	0	0	1
Glades.....	845	112	42	15	0	0	30	2	14	0
Gulf.....	410	189	9	73	0	0	63	2	22	0
Hamilton.....	225	27	0	0	0	0	56	4	0	0
Hardee.....	430	138	55	26	7	0	19	18	0	0
Hendry.....	707	377	51	24	11	0	185	40	54	0
Hernando.....	320	20	26	4	0	0	14	2	0	0
Highlands.....	915	1191	36	29	28	2	61	42	131	0
Hillsborough.....	45964	446	262	600	95	8	276	350	1078	2045
Holmes.....	70	29	0	56	0	0	1	2	5	1
Indian River.....	773	244	16	23	124	11	2	1	8	2
Jackson.....	163	139	42	16	10	0	89	45	1	0
Jefferson.....	131	179	11	78	29	0	14	10	10	8
Lafayette.....	12	21	0	1	0	0	8	0	0	0
Lake.....	1428	493	20	24	1	1	0	0	18	6
Lee.....	311	430	3	39	73	4	9	7	106	0
Leon.....	863	364	42	44	125	0	1803	15	357	129
Levy.....	476	145	10	13	6	0	11	2	6	0
Liberty.....	130	11	17	26	0	0	265	9	7	0
Madison.....	35	18	6	27	6	0	25	7	0	0
Manatee.....	2119	284	84	49	95	8	65	90	108	60
Marion.....	1729	859	39	67	35	1	93	17	82	29
Martin.....	689	1112	0	0	11	5	41	16	69	6
Monroe.....	2287	241	18	43	112	0	3	22	200	14
Nassau.....	384	157	9	71	57	1	21	4	34	0
Okaloosa.....	835	1319	5	23	13	0	208	101	20	10
Okeechobee.....	267	402	0	8	4	0	22	38	74	3
Orange.....	20636	17346	190	812	422	6	2058	1465	566	333
Osceola.....	245	419	52	32	15	8	49	7	86	1
Palm Beach.....	4303	3074	94	144	2073	2	422	99	108	195
Pasco.....	46	101	138	0	11	0	25	2	74	0
Pinellas.....	19999	3048	203	432	986	17	1853	1171	2497	201
Polk.....	5511	584	151	195	109	1	89	160	219	33
Putnam.....	811	764	70	48	56	0	18	7	74	0
St. Johns.....	177	375	12	43	2	0	6	18	10	1
St. Lucie.....	1952	1316	50	19	274	10	20	20	333	45
Santa Rosa.....	754	809	1	46	5	0	78	53	20	1
Sarasota.....	3937	451	14	44	236	6	68	95	108	123
Seminole.....	769	1087	9	101	67	0	269	238	45	35
Sumter.....	387	80	2	49	7	0	187	4	55	0
Suwannee.....	97	18	14	10	24	0	11	5	40	10
Taylor.....	348	59	0	42	49	0	5	3	61	1
Union.....	785	46	0	5	0	0	3	4	0	0
Volusia.....	3717	890	41	94	983	46	107	77	221	37
Wakulla.....	32	29	1	17	0	0	17	0	0	0
Walton.....	108	205	40	84	18	0	155	42	20	12
Washington.....	14	27	0	10	6	0	40	1	8	3

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	R. PROTECTION OF FOOD AND MILK									
	Food-handling Establishments Admitted to Service	Field Visits to Food-handling Establishments	Number of Food-handlers Trained	Dairy Farms Admitted to Service	Field Visits to Dairy Farms	Milk and Milk Products Plants Admitted to Service	Field Visits to Milk and Milk Products Plants	Cows Tuberculin Tested	Cows Bangs Tested	Dairy Farms under Mastitis Control Program
	1	2	3	4	5	6	7	8	9	10
Total 1961.....	27057	169283	3159	757	11170	386	8457	95727	40282	559
Alachua.....	445	2081	128	20	102	6	22	0	0	0
Baker.....	54	201	248	4	18	0	0	0	0	1
Bay.....	222	1507	0	9	85	2	14	0	0	0
Bradford.....	52	690	0	6	36	5	38	135	156	0
Brevard.....	303	1544	49	9	74	0	0	0	0	0
Broward.....	2192	6564	32	2	2	8	33	179	0	0
Calhoun.....	22	294	0	11	218	0	0	0	0	0
Charlotte.....	66	374	0	5	14	0	0	0	0	0
Citrus.....	51	113	0	0	0	0	0	0	0	0
Clay.....	122	958	0	7	76	2	13	0	0	0
Collier.....	129	206	0	0	0	0	0	0	0	0
Columbia.....	109	332	0	1	13	1	12	0	0	0
Dade.....	6487	42985	590	45	1217	145	3434	6539	0	0
DeSoto.....	87	482	0	3	85	0	0	0	0	0
Dixie.....	32	107	0	0	0	0	0	0	0	0
Duval.....	859	2916	3	0	0	0	0	0	0	0
Escambia.....	725	4586	411	52	955	5	76	4050	177	0
Flagler.....	84	483	0	1	10	0	0	0	0	0
Franklin.....	45	227	0	0	0	0	0	0	0	0
Gadsden.....	85	644	0	7	116	2	26	99	0	0
Gilchrist.....	13	136	0	0	0	0	0	0	0	0
Glades.....	24	73	0	8	57	0	0	0	0	2
Gulf.....	102	931	0	1	19	0	0	0	0	0
Hamilton.....	41	82	0	0	0	0	0	0	0	0
Hardee.....	28	135	0	10	51	0	0	0	0	0
Hendry.....	63	381	0	4	27	0	0	0	0	8
Hernando.....	37	67	0	2	5	0	0	0	0	0
Highlands.....	123	421	0	7	39	4	5	0	0	0
Hillsborough.....	3187	41703	79	100	2374	25	1263	30067	122	100
Holmes.....	77	632	0	16	230	0	0	411	0	0
Indian River.....	58	813	1	7	84	1	16	0	0	0
Jackson.....	94	1032	149	25	371	4	34	0	0	0
Jefferson.....	84	349	0	8	128	1	14	981	905	9
Lafayette.....	10	32	0	20	415	0	0	0	0	0
Lake.....	174	459	0	13	31	2	2	0	0	0
Lee.....	418	1034	0	5	65	7	78	0	1	0
Leon.....	420	2749	0	11	240	4	151	625	0	0
Levy.....	37	69	0	1	1	1	1	9	0	0
Liberty.....	11	125	0	0	0	0	0	0	0	0
Madison.....	38	106	0	8	130	3	16	846	0	0
Manatee.....	363	1671	0	37	233	1	45	550	396	0
Marion.....	173	838	27	9	293	1	29	1889	0	0
Martin.....	146	613	10	8	105	2	10	960	0	0
Monroe.....	202	638	0	0	0	8	37	0	0	0
Nassau.....	89	454	31	0	0	0	0	9	0	0
Okaloosa.....	128	244	0	4	27	0	0	0	0	0
Okeechobee.....	77	562	67	22	266	2	23	13031	1040	2
Orange.....	969	4303	582	31	231	18	547	0	0	0
Osceola.....	99	437	0	7	102	0	0	0	0	0
Palm Beach.....	1051	2323	0	34	145	30	1149	16423	32548	360
Pasco.....	65	567	0	16	151	0	0	4854	171	0
Pinellas.....	2656	17036	107	12	228	49	949	2350	512	12
Polk.....	1119	7555	248	49	607	2	29	6335	3964	49
Putnam.....	135	759	0	1	30	0	0	0	0	0
St. Johns.....	63	492	0	3	41	2	10	0	0	0
St. Lucie.....	212	3086	19	6	47	4	27	2271	0	0
Santa Rosa.....	70	183	3	19	142	0	0	0	0	0
Sarasota.....	568	2240	0	6	72	5	22	0	0	3
Seminole.....	189	698	0	9	66	11	11	290	0	0
Sumter.....	32	219	0	8	107	0	0	734	198	0
Suwannee.....	68	761	23	5	71	0	0	23	16	0
Taylor.....	77	191	32	0	0	1	1	0	0	0
Union.....	16	31	0	4	17	0	0	0	0	0
Volusia.....	1074	4005	320	15	506	18	290	431	0	0
Wakulla.....	22	107	0	0	0	0	0	0	0	0
Walton.....	112	336	0	13	156	3	29	1114	76	13
Washington.....	72	311	0	11	249	1	1	522	0	0

TABLE 7 (Continued)
MAJOR ACTIVITIES OF LOCAL HEALTH UNITS, 1961

COUNTY	V. HEALTH INFORMATION						X. LABORATORY SPECIMENS EXAMINED 1 thru 22
	Meetings Attended	Lectures and Motion Picture Showings	Radio and Television Programs	News Articles Published	Exhibits Displayed		
	1	2	4	5	6		
Total 1961.....	17152	12820	348	1250	380		642051
Alachua.....	999	627	5	6	2		9860
Baker.....	37	21	0	27	0		1021
Bay.....	85	169	2	1	5		7611
Bradford.....	110	20	1	10	0		1523
Brevard.....	437	285	2	43	0		14017
Broward.....	471	398	3	4	0		33837
Calhoun.....	49	37	0	1	0		1180
Charlotte.....	344	162	0	45	11		4450
Citrus.....	95	45	0	3	0		1023
Clay.....	208	65	0	41	8		1902
Collier.....	180	69	3	15	4		3917
Columbia.....	27	8	0	5	0		2408
Dade.....	1594	1381	24	43	61		80182
DeSoto.....	39	12	1	9	4		2118
Dixie.....	22	19	0	14	7		2466
Duval.....	122	43	0	0	0		19212
Escambia.....	422	340	3	28	8		35191
Flagler.....	7	4	0	7	0		1488
Franklin.....	82	58	0	7	25		2636
Gadsden.....	218	89	0	40	0		6688
Gilchrist.....	8	0	0	0	0		587
Glades.....	59	9	12	4	0		598
Gulf.....	47	83	12	20	8		1727
Hamilton.....	88	16	0	26	55		2101
Hardee.....	80	8	1	1	1		2511
Hendry.....	79	8	36	21	0		2308
Hernando.....	21	18	0	0	0		820
Highlands.....	66	15	1	0	0		2311
Hillsborough.....	1749	820	7	62	9		121305
Holmes.....	36	32	17	7	13		3441
Indian River.....	353	79	1	0	0		2933
Jackson.....	81	127	0	0	0		6465
Jefferson.....	43	69	0	0	0		1553
Lafayette.....	7	2	0	0	0		501
Lake.....	57	38	0	0	1		3537
Lee.....	300	105	14	10	3		8727
Leon.....	169	189	1	88	0		21168
Levy.....	45	78	1	5	0		2685
Liberty.....	6	1	0	0	0		1256
Madison.....	66	52	2	11	0		2409
Manatee.....	490	331	8	19	3		12001
Marion.....	285	60	36	63	11		7422
Martin.....	122	64	0	0	0		1359
Monroe.....	219	256	16	37	2		3360
Nassau.....	148	119	0	14	5		2947
Okaloosa.....	96	85	6	6	50		4186
Okeechobee.....	43	19	0	0	0		1261
Orange.....	1130	1464	29	43	24		27168
Osceola.....	32	21	0	0	0		3029
Palm Beach.....	1757	924	9	12	10		27161
Pasco.....	51	11	2	23	1		2516
Pinellas.....	1023	1551	19	147	15		55474
Polk.....	456	618	23	58	1		27827
Putnam.....	95	26	2	1	1		4796
St. Johns.....	148	4	0	5	0		1696
St. Lucie.....	106	28	0	14	0		3250
Santa Rosa.....	574	667	2	29	10		5873
Sarasota.....	422	240	11	53	5		4231
Seminole.....	193	437	0	14	1		3261
Sumter.....	44	43	0	31	0		1709
Suwannee.....	87	42	0	13	2		1852
Taylor.....	75	27	1	6	0		1522
Union.....	12	4	0	4	0		845
Volusia.....	534	91	9	35	0		8405
Wakulla.....	34	32	0	0	4		1798
Walton.....	54	53	24	17	10		3568
Washington.....	14	3	2	2	0		1861

BUREAU OF VITAL STATISTICS

EVERETT H. WILLIAMS, JR., M.S., Hyg.
Director

This bureau has a dual function. First, it is responsible for the collection, preservation and issuance of certified copies of vital records. Second it provides public health statistical data and consultation on these matters to the State Board of Health.

Vital records in Florida consist of reports of the following events: birth, stillbirth, death, marriage, annulment of marriage, divorce, adoption and legal change of name. By legal requirement these events are each recorded at the time of occurrence of the event through an established registration system and the record has documentary value in a court of law. In addition to their legal value these records have statistical value for public health agencies and others interested in demographic studies.

COLLECTION

It is axiomatic that the value of statistical tabulations are dependent upon the quality of the basic data. For this reason, collection of records is one of the primary functions of a vital statistics system. The local health officers are the registrars and are responsible for the collection of birth, stillbirth and death certificates for their areas. Particular emphasis has been placed upon promptness of filing birth and death records. Last year 94.8 per cent of all births and 97.6 per cent of all deaths were registered at this bureau by the fifth of the following month. A total of 16 counties submitted 98 per cent or more of their birth records, and 24 counties submitted 98 per cent of their death records within this time limit. Unfortunately, there is still a sizable number of counties which submit less than 90 per cent of their records on time. One measurement of the relative efficiency between counties of birth and death registration is the "Vital Statistics Scoreboard" which is published annually (Table 15). The top 10 units are to be congratulated on their superior performance: Jacksonville-Duval, Broward, Dade, Orange, Hillsborough, Citrus, Jefferson, Pinellas, Escambia and Alachua.

Last year a total of 228,457 current certificates were registered with the bureau, an increase of 2.6 per cent over the preceding year.

INDEXING

The bureau is responsible for the preparation of a comprehensive index of the records on file so that they can be promptly located when needed. Annual indexes were prepared and in addition a consolidated five-year birth index for the period 1956-1960 was made by the Data Processing Unit.

A project for re-indexing all records prior to 1940 was started in 1958. Since no personnel have been available for full-time work on the

project, it has been carried on as a spare-time job whenever the current work was completed. All deaths, marriages and divorces prior to 1940 have been re-indexed by manual methods and this has resulted in more efficient searching procedures. A more comprehensive project by machine methods was started for births. This has proceeded rather slowly because of the great difficulty in deciphering hand-written names.

CERTIFICATIONS

The issuance of certified photocopies and other certifications is one of the large-volume jobs performed by the bureau. Last year 119,822 requests for certifications were received and processed. This figure represents an increase of 4.8 per cent over the previous year and is a good index of the increase in the workload in the bureau.

AMENDMENTS

The amendment of records is one of the most complex and troublesome functions of the bureau. Numerous requests are received to have records corrected. In each case the applicant must submit evidence to substantiate his request and bureau personnel must determine whether sufficient proof has been submitted. Every effort is made to correct minor errors as easily as possible while making sure that sufficient evidence is obtained for major corrections to maintain the validity of the record. A revised set of administrative procedures for amendments was effected early in 1961.

DELAYED REGISTRATION OF BIRTH

A "Delayed Birth Certificate" is one which is filed after the person's fourth birthday. It must be accompanied by documents which verify the date of birth, place of birth and parentage. Requirements for documentary evidence must be sufficient to minimize the filing of fraudulent certificates. Bureau personnel must explain requirements for evidence in writing and orally and must determine when sufficient proof has been submitted. In 1961 a total of 3519 delayed birth certificates were filed. This is an increase of 8.6 per cent over the preceding year.

ADOPTIONS

Legal adoptions have increased rapidly in this state. In 1961 a total of 3900 adoption decrees were received from the courts for children born in Florida. This represents an 8.3 per cent increase over 1960. When an adoption decree is received for a person born in Florida a new birth certificate is substituted for the original certificate. The new certificate shows the new parents and does not disclose the fact of adoption. The original certificate is sealed and is only available upon court order or request of the registrant if of legal age. Adoption decrees received for persons born in other states are forwarded to the vital statistics office of the state of birth for similar processing. A total of 1045 adoption reports were forwarded to other states.

STATISTICAL SECTION

OLIVER H. BOORDE, B.S., B.A.
Director

This section of the Bureau of Vital Statistics is responsible for summarizing and analyzing data obtained from vital records and special studies. It also provides statistical support and consultation to all bureaus and divisions of the State Board of Health.

During the year, the statistical section published a monthly vital statistics bulletin which revealed the latest available data on births, deaths, marriages and divorces. Accompanying this bulletin was a monthly article concerning various subjects of public health interest. The bulletin is widely distributed to the county health departments, hospitals, libraries, schools, and to persons expressing a desire to receive this type of information.

At the end of each year, the section published Supplement No. 1 to the State Board of Health Annual Report—a complete summary and analysis of vital statistics for the year. Supplement No. 2 to the Annual Report (Florida Morbidity Statistics) was published in cooperation with the Bureau of Preventable Diseases. This report reviews the number of cases of reportable diseases and analyzes any apparent trends.

In 1961, assistance was requested of the statistical section for a wide range of studies and surveys. Assistance primarily consisted of sample design and statistical interpretation of resulting data. Consultation was also provided to insure that study procedures were adaptable to IBM processing. During the year, special projects included an immunization survey of the Bradenton-Palmetto area and an immunization and serology survey of Glades, Hendry and Highlands counties.

Project planning and much of the ground work was completed on an immunization survey to be conducted in conjunction with the Hillsborough County oral vaccine field trial, which is scheduled for the early part of 1962. Basic objectives and plans were completed for a detailed study of Florida neonatal mortality to be published in 1962.

The following report presents a brief summary of preliminary vital statistics for 1961. A more detailed analysis of these statistics can be found in Supplement No. 1 of this report, entitled Florida Vital Statistics, 1961. Preliminary 1961 birth and death figures have been used in this report because of a time lag in receipt of records from the counties and the extensive process required to summarize the data in final form. Final 1961 data covering 1961 marriages, divorces and annulments are contained in Table 14, and Tables 11A and 12A present final 1960 natality and mortality figures.

Population

The Bureau of Economic and Business Research, University of Florida, provisionally estimated the 1961 midyear population of Florida at

5,158,100. This represented a 4.2 per cent gain over the final U. S. Bureau of the Census count as of April 1, 1960. The 4.2 per cent increase for the 15 months from April 1960 to July 1961 is significantly below the 7.9 per cent average annual increase experienced during the period 1950 to 1960. There remains the possibility that this provisional population estimate for 1961 could be revised upward when additional data are received, but even on this preliminary basis the indications are that the state is adding an average of 13,800 persons a month to its population.

Births

There were 116,866 live births to Florida residents in 1961 according to preliminary data. This was a 1.1 per cent rise over 1960 figures. This increase in total births resulted from 1.9 per cent gain in births for whites (84,402 to 86,033) and a 1.1 per cent loss in births among nonwhites (31,208 to 30,853). In spite of the decline in nonwhite births, the birth rate per 1000 population among nonwhites remained significantly above the rate for whites (33.5 to 20.3). The 1961 total birth rate at 22.7 births per 1000 population marked the fifth consecutive year that the birth rate has declined. The principal reason for this downward trend is probably the large number of persons beyond the childbearing age who in recent years have selected Florida as their retirement home.

Deaths

Preliminary mortality data reveal that deaths among Florida residents increased 2.4 per cent from 1960 to 1961; totaling 49,110 this year compared with 47,937 deaths the previous year. The death rate dipped slightly from 9.6 in 1960 to the present 9.5 deaths per 1000 population. Over the last 10-year period the death rate has remained fairly constant, varying from a low of 9.1 in 1955 to a high of 9.6 in 1952, 1958 and 1960. The steadying influences on this rate have been the growth of the aged population of Florida, offset by improved age-specific death rates for each age group. By race, there has been a general upward trend in the death rate for whites and a downward movement of death rate for nonwhites. The white death rate has risen from a low of 9.0 in 1956 to the present 9.5 level, while the rate for nonwhites has fallen from 11.4 to 9.8 deaths per 1000 population during the same period. All races experienced an improvement in their age-specific death rate. However, in the case of the white race this improvement was more than offset by an increased population of older persons. During the years from 1950 to 1960, the white population 65 years and older increased 149 per cent as compared with a total population gain of 79 per cent during the same period.

Table 10 presents the 10 leading causes of death with rates per 100,000 population for 1961 with comparative data for these causes for 1951. The top six leading causes have remained in their present position during the last 10 years. However, it is of interest that except for heart disease and cancer (malignant neoplasms) these six causes have all shown at least some decline in their death rates per 100,000 population.

Heart disease and cancer deaths have experienced a fairly steady increase during the past decade. General arteriosclerosis, diabetes mellitus and other diseases of the circulatory system in the 7, 8 and 9 positions, respectively, are diseases primarily associated with the aged and their rise in relative ranking can be directly attributed to the growth in the older segment of the state's population. Tuberculosis, ranking seventh in 1951, has fallen to 20th place in 1961 and its death rate decreased a substantial 76 per cent.

Marriages, Divorces and Annulments

There were 40,934 marriages recorded in Florida during 1961, and this marked the ninth year in succession that the number of marriages in the state has increased. Marriages among the white race (34,080) represented 82 per cent of the total and revealed an increase of five per cent over the 32,479 marriages recorded last year. Nonwhite marriages were less than one per cent above 1960 figures, increasing from 6836 to 6854. Divorces in the state totaled 21,492, and annulments 190 during the year 1961. This yielded increases of 11 and three per cent, respectively, when compared with 1960 data. The race of persons involved in divorce or annulment action is not shown on the record. The 1961 data yields a ratio of 1.9 marriages per each divorce and annulment in contrast to a 1.5 ratio 10 years ago.

TABLE 8
ACTIVITIES OF THE BUREAU OF VITAL STATISTICS
DURING THE YEARS 1960 AND 1961

Activity	1960	1961	Per Cent Change
Current certificates filed.....	222,759	228,457	+ 2.6
Delayed birth certificates filed.....	3,241	3,519	+ 8.6
Amended certificates filed for adoptions.....	3,601	3,900	+ 8.3
Adoption reports forwarded to other states.....	854	1,045	+22.4
Legitimations processed.....	534	466	-12.7
Legal changes of name received.....	976	935	- 4.2
Requests for certifications:			
Total.....	114,324	119,822	+ 4.8
Fee Paid.....	90,700	96,000	+ 5.8
Free.....	23,624	23,822	+ 0.8
Photostats made.....	139,709	127,843	- 8.5
Birth registration cards made.....	23,123	22,924	- 0.9
Fees collected and transmitted to the State Treasurer	\$142,917.91	\$151,990.78	+ 6.3

TABLE 9
RESIDENT BIRTHS AND DEATHS WITH RATES
PER 1000 POPULATION, FLORIDA, 1940, 1950-1961

Year	Midyear Population Estimate	Births	Birth Rate	Deaths	Death Rate
1961**.....	5,158,100	116,886	22.7	49,110	9.5
1960*.....	5,012,100	115,610	23.1	47,937	9.6
1959*.....	4,742,900	112,733	23.8	44,179	9.3
1958*.....	4,498,100	108,014	24.0	43,353	9.6
1957*.....	4,186,200	103,806	24.8	39,937	9.5
1956*.....	3,893,400	97,320	25.0	36,705	9.4
1955*.....	3,662,000	89,112	24.3	33,295	9.1
1954*.....	3,431,100	84,831	24.7	31,503	9.2
1953*.....	3,223,000	80,087	24.8	30,529	9.5
1952*.....	3,033,100	74,219	24.5	29,136	9.6
1951*.....	2,926,500	70,431	24.1	27,857	9.5
1950.....	2,797,100	64,370	23.0	26,525	9.5
1940.....	1,915,155	33,696	17.6	21,458	11.2

**Provisional estimate.

*Population revised in light of 1960 U. S. Census data.

TABLE 10
TEN LEADING CAUSES OF DEATH WITH RATES PER
100,000 POPULATION, FLORIDA, 1951 AND 1961

1961 Rank	CAUSE OF DEATH	1961*		1951		1951 Rank
		Deaths	Rate	Deaths	Rate	
1	Diseases of the heart (400-443).....	17,708	343.2	9,142	312.4	1
2	Malignant neoplasms (140-205).....	8,274	160.4	3,751	128.2	2
3	Cerebral vascular disease (330-334).....	5,705	110.6	3,298	112.7	3
4	All accidents (800-962).....	2,903	56.3	2,011	68.7	4
5	Diseases of early infancy (760-776).....	2,067	40.1	1,406	48.0	5
6	Influenza and pneumonia (480-493).....	1,260	24.4	927	31.7	6
7	General arteriosclerosis (450).....	847	16.4	487	16.6	8
8	Diabetes mellitus (260).....	760	14.7	374	12.8	10
9	Other diseases of the circulatory system (451-468).....	717	13.9	181	6.2	18
10	Suicide (963, 970-979).....	668	13.0	330	11.3	11
20	Tuberculosis—all forms (001-019).....	221	4.3	518	17.7	7
16	Chronic and unspecified nephritis and other renal sclerosis (592-594).....	324	6.3	461	15.8	9

*Based on preliminary mortality data and provisional population estimates.

TABLE 11
RESIDENT DEATHS AND DEATH RATES BY CAUSE, BY RACE, FLORIDA, 1961 (PRELIMINARY)

CAUSE OF DEATH (Numbers in parentheses refer to the International List of Causes of Death)	DEATHS			Rate per 100,000 Population		
	Total	White	Nonwhite	Total	White	Nonwhite
	49,110	40,050	9,060	9.5*	9.5*	9.8*
TOTAL DEATHS.....	49,110	40,050	9,060	9.5*	9.5*	9.8*
Tuberculosis of respiratory system (001-008).....	204	187	67	4.0	3.2	7.3
Tuberculosis, other forms (010-019).....	17	9	8	0.3	0.2	0.9
Syphilis and its sequelae (020-029).....	126	69	67	2.4	1.4	7.3
Typhoid fever (040).....	0	0	0	.....	.....	.....
Dysentery, all forms (045-048).....	5	3	2	0.1	0.1	0.2
Diphtheria (055).....	1	0	1	0.0	0.0	0.7
Acute poliomyelitis (057).....	17	11	6	0.3	0.3	0.7
Meningococcal infections (057).....	26	19	7	0.5	0.4	0.8
Acute infectious encephalitis (082).....	10	9	1	0.2	0.2	0.1
Measles (085).....	0	0	0	.....	.....	.....
Typhus and other rickettsial diseases (100-108).....	169	113	56	3.3	2.7	6.1
All other diseases classified as infective and parasitic (080-138) with exception of above causes.....	8,274	7,217	1,057	16.4	17.0	11.4
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-205).....	760	584	176	1.4	1.3	1.9
Diabetes mellitus (260).....	99	67	32	1.9	1.6	3.5
Anemias (290-298).....	25,670	21,899	3,771	49.7	51.7	40.9
Major cardiovascular-renal disease.....	5,705	4,593	1,112	10.6	10.4	12.6
Diseases of the heart (400-443).....	17,708	15,524	2,184	34.3	36.6	23.8
Rheumatic fever (400-402).....	10	5	5	0.2	0.1	0.5
Chronic rheumatic heart disease (410-416).....	468	428	40	0.9	0.9	0.4
Arteriosclerotic heart disease, coronary disease (420).....	13,746	12,497	1,249	26.6	26.5	13.4
Nonrheumatic chronic endocarditis and myocardial degeneration (421, 422).....	1,141	943	198	2.2	2.2	1.5
Hypertension with heart disease (440-443).....	1,604	976	628	3.1	2.8	4.3
Other diseases of heart (430-434).....	839	675	164	1.6	1.5	1.7
Hypertension without heart disease (444-447).....	369	226	143	0.7	0.6	0.8
General arteriosclerosis (450).....	847	743	104	1.6	1.5	1.5
Other circulatory diseases (451-468).....	717	607	110	1.4	1.3	1.9
Chronic and unspecified nephritis (592-594).....	324	267	57	0.6	0.5	0.8
Influenza (480-488).....	51	24	27	0.1	0.0	0.2
Pneumonia (490-493).....	1,209	826	383	2.3	1.9	2.9
Ulcer of stomach and duodenum (540, 541).....	312	268	44	0.6	0.5	0.8
Intestinal obstruction and hernia (560, 561, 570).....	254	199	55	0.5	0.4	0.7
Gastritis, duodenitis, enteritis and colitis, except diarrhea of the newborn (543, 571, 572).....	836	174	162	1.6	0.4	1.7
Cirrhosis of liver (581).....	600	589	61	1.1	1.0	0.5
Acute nephritis and nephrosis (590, 591).....	49	23	26	0.1	0.0	0.2
Complications of pregnancy, childbirth and the puerperium (640-652, 660, 670-689).....	58	19	39	0.1	0.0	0.2
Birth injuries, postnatal asphyxia and atelectasis (760-762).....	617	469	148	1.2	1.1	0.6
Infection of the newborn (763-768).....	909	663	246	1.8	1.6	0.9
Other diseases peculiar to early infancy, and immaturity unqualified (769-776).....	161	66	95	0.3	0.2	0.4
Symptoms, senility, and ill-defined causes (780-795).....	997	683	314	1.9	1.6	2.8
All other diseases (residual).....	819	485	334	1.6	1.4	2.2
Motor vehicle accidents (810-885).....	3,815	2,646	1,169	7.5	6.2	11.4
All other accidents (800-802, 840-962).....	1,249	1,978	271	2.4	2.3	2.9
Suicide and self-inflicted injury (963, 970-979).....	1,654	1,179	475	3.2	2.7	5.1
Homicide and operations of war (964, 965, 980-999).....	668	634	34	1.3	1.2	0.3
Infant mortality (deaths under one year of age).....	473	152	321	0.9	0.6	1.2
	3,415	2,003	1,412	29.2***	23.3***	45.3***

*Rate per 1,000 population.

**Rate per 10,000 live births.

***Rate per 1,000 live births.

TABLE 11A
RESIDENT DEATHS AND DEATH RATES BY CAUSE, BY RACE, FLORIDA, 1960 (FINAL FIGURES)

CAUSE OF DEATH (Numbers in parentheses refer to the International List of Causes of Death)			DEATHS		Rate per 100,000 Population			
			Total	White	Nonwhite	Total	White	Nonwhite
TOTAL DEATHS			47,987	38,837	9,150	9.6*	9.4*	10.2*
Tuberculosis of respiratory system (001-008)			187	119	68	3.7	2.9	7.6
Tuberculosis, other forms (010-019)			18	8	10	0.4	0.2	1.1
Syphilis and its sequelae (020-029)			88	42	46	1.8	1.0	5.1
Typhoid fever (040)			1	0	1	0.0	.....	.....
Dysentery, all forms (045-048)			5	2	3	0.1	0.0	0.3
Scarlet fever and strep. sore throat (050,051)			2	2	0	0.0	0.0	.....
Diphtheria (055)			3	1	2	0.0	0.0	0.2
Whooping cough (056)			4	0	4	0.1	0.0	0.4
Meningococcal infections (057)			18	11	7	0.4	0.3	0.8
Acute poliomyelitis (080)			5	3	2	0.1	0.1	0.2
Acute infectious encephalitis (082)			16	12	4	0.3	0.3	0.4
Measles (086)			3	3	0	0.1	0.1	.....
Typhus and other rickettsial diseases (100-108)			0	0	0	.....	.....	7.0
All other diseases classified as infective and parasitic (030-138) with exception of above causes			182	119	63	3.6	2.9	113.9
Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues (140-205)			7,789	6,769	1,020	155.4	164.4	8.7
Benign and unspecified neoplasms (210-239)			144	111	33	2.9	2.7	20.0
Diabetes mellitus (260)			741	562	179	14.8	13.7	5.6
Anemias (290-298)			107	57	50	2.1	1.4	412.0
Major cardiovascular-renal disease.			24,733	21,043	3,690	498.5	511.2	119.8
Diseases of the heart.			5,635	4,462	1,073	110.4	108.4	247.0
Rheumatic fever (400-402)			17,106	14,894	2,212	341.3	361.3	0.3
Chronic rheumatic heart disease (410-416)			9	6	3	0.2	0.1	6.1
Arteriosclerotic heart disease, coronary disease (420)			502	447	55	10.0	10.9	132.3
Nonrheumatic chronic endocarditis and myocardial degeneration (421, 422)			12,986	11,751	1,185	288.1	285.5	21.8
Hypertension with heart disease (440-443)			1,239	1,044	195	24.7	25.4	66.3
Other diseases of heart (430-434)			1,584	990	594	31.6	24.1	20.1
Hypertension without heart disease (444-447)			886	656	180	16.7	15.9	12.1
General arteriosclerosis (450)			359	251	108	7.2	6.1	10.6
Other circulatory diseases (451-468)			745	650	95	14.9	15.8	9.6
Chronic and unspecified nephritis (592-594)			669	583	86	13.3	14.2	13.0
Influenza (480-483)			319	203	116	6.4	4.9	8.5
Pneumonia (490-502)			185	109	76	3.7	2.6	53.4
Bronchitis (500-502)			1,454	978	478	29.0	23.7	1.8
Ulcer of stomach and duodenum (540, 541)			104	88	16	2.1	2.1	3.3
Appendicitis (550-553)			313	283	30	6.2	6.9	1.7
Intestinal obstruction and hernia (560, 561, 570)			60	45	15	1.2	1.1	4.1
Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn (543, 571, 572)			280	213	37	5.0	5.2	17.9
Cirrhosis of liver (581)			320	160	160	6.4	3.9	7.6
Acute nephritis and nephrosis (590, 591)			579	511	68	11.6	12.4	2.5
Hyperplasia of prostate (610)			67	44	23	1.3	1.1	3.1
Complications of pregnancy, childbirth and the puerperium (640-652, 660, 670-689)			130	102	28	2.6	2.5	13.1**
Birth injuries, postnatal asphyxia and atelectasis (760-762)			58	17	41	5.0**	2.0**	16.3
Infection of the newborn (763-768)			571	434	137	11.4	10.5	38.7
Other diseases peculiar to early infancy, and immaturity unqualified (769-776)			939	592	347	18.7	14.4	9.8
Symptoms, senility, and ill-defined causes (780-795)			163	75	88	3.3	1.8	39.1
All other diseases (residual)			970	620	350	19.4	15.1	59.5
Motor vehicle accidents (810-835)			886	541	395	18.7	13.1	44.1
All other accidents (800-802, 840-962)			2,685	2,152	533	53.6	52.3	30.6
Suicide and self-inflicted injury (963, 970-979)			1,295	962	273	24.6	23.4	48.7
Homicide and operations of war (964, 965, 980-999)			1,640	1,204	436	32.7	29.2	3.9
Infant mortality (deaths under one year of age)			672	637	35	13.4	15.5	33.8
			452	149	303	9.0	8.6	46.1**
			3,431	1,992	1,439	29.7***	23.6***	46.1**

*Rate per 1,000 population.

**Rate per 10,000 live births.

***Rate per 1,000 live births.

TABLE 12
ESTIMATED POPULATION, 1961, AND PRELIMINARY
TOTALS OF BIRTHS, DEATHS, AND INFANT DEATHS,
BY RACE, BY COUNTY, FLORIDA, 1961

COUNTY	Population 1961 Prov. Est.	BIRTHS			DEATHS			INFANT DEATHS		
		Total	White	Non- white	Total	White	Non- white	Total	White	Non- white
STATE.....	5,158,100	116,886	86,033	30,853	49,110	40,050	9,060	3,415	2,003	1,412
Alachua.....	79,700	2,239	1,521	718	606	364	242	53	21	32
Baker.....	7,200	208	149	59	67	46	21	8	6	2
Bay.....	66,000	2,065	1,708	357	425	355	70	46	33	13
Bradford.....	12,800	318	229	89	133	99	34	10	6	4
Brevard.....	119,600	3,472	2,950	522	697	599	98	100	79	21
Broward.....	367,600	7,702	5,293	2,409	3,177	2,690	487	233	114	119
Calhoun.....	7,000	149	121	28	79	66	13	6	5	1
Charlotte.....	16,400	240	222	18	224	212	12	9	8	1
Citrus.....	11,000	190	131	59	121	103	18	4	3	1
Clay.....	21,400	514	425	89	175	138	37	12	11	1
Collier.....	18,700	448	354	94	157	123	34	16	12	4
Columbia.....	19,600	495	315	180	220	139	81	25	14	11
Dade.....	968,700	19,545	14,469	5,076	8,759	7,656	1,103	482	312	170
DeSoto.....	13,800	304	215	89	116	82	34	10	6	4
Dixie.....	4,700	113	89	24	47	38	9	4	1	3
Duval.....	460,900	12,866	9,325	3,541	3,805	2,650	1,155	336	192	144
Escambia.....	180,400	5,324	3,946	1,378	1,257	908	349	133	75	58
Flagler.....	4,600	108	33	75	43	18	25	5	1	4
Franklin.....	7,000	169	127	42	87	72	15	4	3	1
Gadsden.....	41,300	1,123	238	885	363	122	241	69	9	60
Gilchrist.....	2,700	67	50	17	32	23	9	2	0	2
Glades.....	3,000	59	35	24	24	18	6	1	1	0
Gulf.....	11,000	288	192	96	77	48	29	9	3	6
Hamilton.....	7,900	224	97	127	85	47	38	9	5	4
Hardee.....	12,500	294	241	53	114	104	10	7	5	2
Hendry.....	9,100	252	158	94	81	41	40	15	5	10
Hernando.....	12,400	328	223	105	140	113	27	11	6	5
Highlands.....	22,600	540	345	195	254	190	64	28	13	15
Hillsborough.....	402,100	9,460	7,651	1,809	3,940	3,252	688	304	199	105
Holmes.....	10,700	163	149	14	124	113	11	5	4	1
Indian River.....	26,100	633	420	213	272	226	46	14	8	6
Jackson.....	35,400	686	407	279	301	204	97	28	15	13
Jefferson.....	9,600	265	70	195	96	41	55	10	1	9
Lafayette.....	3,100	46	28	18	35	30	5	2	1	1
Lake.....	57,500	1,180	824	356	733	599	134	50	25	25
Lee.....	63,000	1,343	991	352	601	480	121	41	27	14
Leon.....	74,400	1,878	1,193	685	549	292	257	64	25	39
Levy.....	11,200	239	112	127	125	83	42	11	5	6
Liberty.....	3,100	85	67	18	36	29	7	2	2	0
Madison.....	15,600	357	148	209	153	88	65	17	6	11
Manatee.....	74,500	1,243	885	358	917	813	104	49	31	18
Marion.....	53,200	1,256	716	540	580	347	233	36	15	21
Martin.....	19,100	406	241	165	202	161	41	19	7	12
Monroe.....	47,300	1,308	1,180	128	344	299	45	35	29	6
Nassau.....	18,000	484	344	140	160	105	55	20	14	6
Okaloosa.....	67,600	2,076	1,885	191	310	271	39	60	50	10
Okeechobee.....	8,100	219	179	40	73	51	22	6	5	1
Orange.....	275,400	6,935	5,559	1,376	2,251	1,874	377	181	125	56
Osceola.....	19,500	344	275	69	300	272	28	11	9	2
Palm Beach.....	236,300	5,023	3,344	1,679	2,404	1,899	505	192	90	102
Pasco.....	37,400	673	579	94	496	457	39	25	19	6
Pinellas.....	392,000	5,799	4,623	1,176	5,636	5,346	290	156	112	44
Polk.....	201,500	4,588	3,452	1,136	1,737	1,409	328	130	79	51
Putnam.....	32,300	870	519	351	366	212	154	31	7	24
St. Johns.....	30,900	681	431	250	354	252	102	17	7	10
St. Lucie.....	43,900	975	544	431	462	324	138	53	20	33
Santa Rosa.....	28,900	1,044	969	75	182	150	32	24	18	6
Sarasota.....	82,300	1,334	1,061	273	912	826	86	32	20	12
Seminole.....	61,100	1,540	1,104	436	479	321	158	39	16	23
Sumter.....	11,500	255	157	98	125	86	39	9	3	6
Suwannee.....	14,900	345	210	135	181	113	68	12	4	8
Taylor.....	12,900	352	249	103	130	87	43	4	4	0
Union.....	6,200	117	77	40	57	48	9	0	0	0
Volusia.....	129,900	2,407	1,735	672	1,793	1,569	224	62	43	19
Wakulla.....	5,800	112	75	37	49	29	20	2	1	1
Walton.....	14,700	292	232	60	150	126	24	8	4	4
Washington.....	11,600	229	147	82	130	102	28	7	4	3

TABLE 12A
ESTIMATED POPULATION WITH RESIDENT BIRTH AND DEATH
RATES PER 1000 POPULATION AND RESIDENT INFANT DEATH
RATES PER 1000 LIVE BIRTHS, BY RACE, BY COUNTY, 1960
(FINAL FIGURES)

COUNTY	Midyear Population Estimate 1960	BIRTH RATE			DEATH RATE			INFANT DEATH RATE		
		Total	White	Non- white	Total	White	Non- white	Total	White	Non- white
STATE.....	5,012,100	23.1	20.5	34.8	9.6	9.4	10.2	29.7	23.6	46.1
Alachua.....	74,500	33.0	31.6	36.0	9.0	8.0	11.2	24.5	18.2	36.1
Baker.....	7,400	26.9	22.8	41.9	9.7	10.7	6.2	30.2	30.3	29.9*
Bay.....	67,800	31.2	29.8	39.1	6.9	6.5	8.8	28.9	23.3	53.2
Bradford.....	12,500	23.9	21.8	31.0	9.8	9.3	11.4	43.5	23.9	88.9*
Brevard.....	113,600	30.2	28.6	42.6	5.9	5.6	9.0	27.1	22.9	49.9
Broward.....	342,700	21.8	17.9	42.0	8.6	8.6	8.5	33.6	27.4	46.9
Calhoun.....	7,400	22.4	22.1	24.2	8.6	8.1	11.7	36.1	29.2	69.0*
Charlotte.....	12,800	16.8	16.3	25.7	12.3	12.4	10.0	27.9	30.5	0*
Citrus.....	9,300	15.5	12.3	28.8	15.1	14.5	16.5	48.6	10.5*	122.4*
Clay.....	19,700	24.7	24.4	27.4	7.2	6.7	10.0	30.9	26.7	54.1*
Collier.....	16,000	24.8	22.6	36.4	7.8	6.8	13.2	32.8	16.4	87.9*
Columbia.....	20,100	23.5	20.4	30.7	10.9	10.0	13.0	42.4	31.6	58.8
Dade.....	947,900	20.7	17.8	37.6	8.8	9.0	7.6	27.6	23.0	40.1
DeSoto.....	11,700	23.5	21.1	30.8	10.9	10.3	12.8	42.6	31.6	64.9*
Dixie.....	4,500	32.7	32.1	35.7	11.6	9.5	22.9	68.0	41.0	200.0*
Duval.....	459,200	27.2	25.6	32.5	8.5	7.5	11.9	30.9	24.7	47.2
Escambia.....	175,400	30.9	28.7	39.2	7.1	6.4	9.6	29.9	24.9	43.8
Flagler.....	4,600	26.7	20.0	37.2	10.0	9.3	11.1	40.7	35.7*	44.8*
Franklin.....	6,600	25.5	25.8	24.3	11.8	9.2	21.4	6.0	7.5	0*
Gadsden.....	42,100	32.7	19.9	40.4	9.8	8.2	10.8	65.0	30.0	75.4
Gilchrist.....	2,800	25.4	23.6	40.0	11.8	9.6	30.0	28.2*	16.9*	83.3*
Glades.....	3,000	22.7	25.9	18.5	7.7	6.5	9.2	58.8*	45.5*	83.3*
Gulf.....	10,000	27.4	25.1	34.6	8.0	7.5	9.6	25.5	26.2	24.1*
Hamilton.....	7,700	25.1	18.1	33.8	10.3	11.2	9.1	41.5	64.1*	26.1
Hardee.....	12,400	22.0	19.8	44.5	11.3	11.0	14.5	47.6	35.7	102.0*
Hendry.....	8,200	23.2	19.0	34.5	9.1	7.3	14.1	36.8	17.5	65.8*
Hernando.....	11,300	27.0	22.9	42.1	11.9	12.0	11.7	45.9	29.4	79.2
Highlands.....	21,500	26.4	22.4	41.6	12.1	11.9	12.7	45.8	36.7	64.2
Hillsborough.....	401,500	23.7	22.3	32.7	9.9	9.4	12.5	28.9	23.8	50.0
Holmes.....	10,800	17.9	17.8	20.0	10.8	11.0	8.0	25.9	27.3	0*
Indian River.....	25,600	23.9	19.7	39.8	10.6	11.5	7.4	24.5	20.2	32.6
Jackson.....	36,200	21.9	19.2	27.9	8.9	8.0	10.7	34.1	25.1	47.9
Jefferson.....	9,500	28.3	19.2	34.6	12.4	9.2	14.6	44.6	26.7*	51.5
Lafayette.....	2,900	17.9	16.0	30.0	12.8	12.4	15.0	76.9*	75.0*	83.3*
Lake.....	57,900	22.7	19.9	34.5	11.8	12.3	10.0	35.0	25.9	57.0
Lee.....	55,300	21.6	18.9	35.9	10.5	10.5	10.7	37.8	31.8	54.5
Leon.....	74,900	30.0	26.6	36.7	8.0	6.3	11.2	30.1	19.3	45.6
Levy.....	10,400	22.8	15.1	40.0	11.5	10.3	14.4	29.5	27.5	31.2
Liberty.....	3,100	24.5	21.1	47.5	14.8	14.1	20.0	39.5*	17.5*	105.3*
Madison.....	14,200	22.7	18.0	27.8	10.2	10.0	10.4	21.7	22.6	21.2
Manatee.....	70,000	16.7	14.0	31.9	13.7	14.3	10.1	21.4	18.1	29.6
Marion.....	51,900	22.5	17.8	31.2	10.2	9.7	11.2	24.9	25.0	24.8
Martin.....	17,200	22.9	18.5	40.0	10.8	11.1	9.7	27.9	27.6	28.6
Monroe.....	48,400	26.2	26.0	28.2	7.2	6.7	11.8	30.7	29.3	42.6
Nassau.....	17,300	25.9	24.8	29.1	9.4	8.6	11.6	33.5	24.8	56.0
Okaloosa.....	61,800	35.1	34.4	44.4	4.3	4.0	7.7	20.3	18.7	36.6
Okeechobee.....	6,500	28.0	27.8	29.1	8.2	7.0	13.6	27.5	20.0	62.5*
Orange.....	267,300	26.2	24.5	35.4	8.1	8.0	8.7	23.2	19.4	38.2
Osceola.....	19,200	19.2	17.4	34.5	18.1	18.9	11.0	35.3	26.8	72.5*
Palm Beach.....	231,700	20.8	17.6	31.6	10.1	10.0	10.4	31.3	21.2	50.4
Pasco.....	37,200	17.3	16.1	26.8	13.4	13.7	11.0	31.1	20.6	81.8
Pinellas.....	380,000	15.2	13.2	36.0	15.1	15.5	10.3	27.7	21.2	52.2
Polk.....	196,900	23.0	20.7	32.9	8.9	8.9	9.1	28.7	25.3	38.4
Putnam.....	32,400	26.7	23.0	35.1	10.3	10.0	10.9	27.7	15.5	45.6
St. Johns.....	30,200	21.8	19.5	28.1	11.5	10.8	13.5	37.9	21.1	68.7
St. Lucie.....	39,800	25.2	20.1	35.5	9.3	9.9	8.1	25.0	22.2	28.1
Santa Rosa.....	29,800	33.4	33.1	36.4	7.2	6.7	13.6	26.2	21.9	75.0*
Sarasota.....	78,100	17.6	15.4	38.1	11.2	11.2	11.6	21.8	16.6	42.0
Seminole.....	55,600	26.7	25.3	31.1	8.2	7.4	10.9	31.0	25.4	44.9
Sumter.....	11,900	22.1	17.5	35.2	10.8	10.3	12.3	26.6	26.0	27.5
Suwannee.....	14,900	21.9	20.0	27.3	11.7	11.5	12.3	33.6	27.5	45.9
Taylor.....	13,200	22.3	22.0	23.4	10.2	7.8	17.5	50.8	40.9	80.0*
Union.....	7,100	22.3	19.4	32.0	11.8	10.0	18.0	20.4*	15.2*	31.2*
Volusia.....	126,600	18.2	15.7	30.9	12.8	13.2	10.9	29.5	25.5	39.5
Wakulla.....	5,300	21.9	17.4	33.3	8.1	8.2	8.0	17.2	0*	40.0*
Walton.....	15,600	18.8	17.9	24.8	10.7	9.7	17.1	54.4	49.6	76.9*
Washington.....	11,200	22.7	18.4	41.4	10.6	10.7	10.5	39.4	35.9	46.0*

TABLE 13
PRELIMINARY TOTALS OF RESIDENT DEATHS FROM
CERTAIN CAUSES, BY COUNTY, FLORIDA, 1961

COUNTIES	Maternal Deaths	Tuberculosis	Syphilis	Dysentery (All Forms)	Acute Polymyelitis	Malignant Neo- plasms (Cancer)	Diabetes	Anemias	Influenza & Pneumonia	Cardio-Vascular-Renal Diseases				Motor Vehicle Accidents	Other Accidents
										*Cerebral Vascular Disease	Heart Disease	Chronic Nephritis	All Other C.-V.-R. Disease		
STATE.....	58	221	126	5	1	8,274	760	99	1,260	5,705	17,708	324	1,933	1,249	1,654
Alachua.....	0	3	0	0	0	85	6	3	23	65	193	4	27	14	31
Baker.....	0	1	1	0	0	10	1	0	4	7	15	1	4	1	2
Bay.....	0	2	2	0	0	84	5	0	2	44	129	6	12	22	19
Bradford.....	0	1	1	0	0	17	1	1	1	16	49	0	3	8	6
Brevard.....	2	4	1	0	0	102	11	1	13	65	225	1	23	42	33
Broward.....	2	13	7	0	0	581	40	9	70	303	1,214	19	117	92	95
Calhoun.....	0	0	0	0	0	13	2	0	2	12	20	0	2	4	8
Charlotte.....	0	1	0	0	0	45	4	1	1	30	87	2	6	2	8
Citrus.....	0	1	0	0	0	27	1	0	1	13	43	0	8	1	10
Clay.....	0	0	0	0	0	31	4	0	3	17	60	0	11	3	8
Collier.....	0	2	1	0	0	25	6	0	6	15	34	3	5	7	7
Columbia.....	0	3	2	0	0	28	5	1	9	35	66	1	6	14	6
Dade.....	9	32	23	0	0	1,629	136	20	215	853	3,270	48	330	173	243
DeSoto.....	1	1	1	0	0	18	2	1	2	9	43	2	4	5	3
Dixie.....	0	0	1	0	0	6	2	1	4	6	12	0	2	3	1
Duval.....	11	26	11	1	0	579	60	5	92	445	1,269	28	152	128	141
Escambia.....	6	1	0	0	0	186	11	3	37	130	463	9	46	48	58
Flagler.....	0	0	0	0	0	12	1	0	3	6	8	1	1	0	4
Franklin.....	0	0	0	0	0	44	4	0	14	11	30	0	3	3	8
Gadsden.....	3	1	0	0	0	3	2	0	2	61	94	6	12	7	17
Gilchrist.....	0	0	0	0	0	4	1	0	2	6	4	0	1	0	4
Glades.....	0	1	0	0	0	9	2	2	1	7	27	1	4	3	7
Gulf.....	0	0	1	0	0	10	0	0	5	8	36	1	0	1	7
Hamilton.....	0	0	0	0	0	14	2	0	4	12	41	0	7	6	6
Hardee.....	0	0	0	0	0	11	0	0	3	7	24	0	0	8	4
Hendry.....	0	0	0	0	0	24	2	0	6	9	42	0	11	6	5
Hernando.....	0	4	1	0	0	45	5	1	6	28	77	1	6	10	17
Highlands.....	5	29	11	0	1	629	78	14	98	464	1,354	23	156	66	135
Hillsborough.....	1	0	0	1	0	17	0	0	3	21	55	0	4	3	3
Holmes.....	0	0	1	0	0	48	4	0	6	24	97	1	11	10	12
Indian River.....	0	1	0	0	0	39	3	0	5	48	97	2	11	12	17
Jackson.....	0	1	1	0	0	14	1	0	6	14	25	0	2	4	4
Jefferson.....	0	2	0	0	0	5	0	0	0	6	12	0	2	1	1
Lafayette.....	1	1	1	0	0	110	15	2	16	85	280	4	36	16	32
Lake.....	0	4	0	0	0	103	13	2	13	80	191	3	25	12	21
Lee.....	2	2	1	0	0	89	9	0	15	87	145	5	19	12	25
Leon.....	0	0	0	0	0	17	0	0	9	12	38	1	4	4	5
Liberty.....	0	0	0	0	0	4	0	0	0	3	16	0	1	1	2
Madison.....	1	0	0	1	0	20	5	0	3	12	63	1	5	3	6
Manatee.....	0	6	2	1	0	149	22	3	29	114	386	8	25	17	14
Marion.....	3	1	1	0	0	88	8	1	16	86	185	7	26	23	15
Martin.....	0	2	1	0	0	33	3	0	3	23	65	1	8	3	9
Monroe.....	0	3	0	0	0	58	7	0	8	41	100	2	7	9	18
Nassau.....	1	1	0	0	0	25	2	1	3	11	49	1	4	9	16
Okaloosa.....	0	0	0	1	0	35	1	0	12	32	86	5	4	12	21
Okeechobee.....	0	0	0	0	0	7	4	0	5	6	17	0	4	7	7
Orange.....	0	10	7	0	0	405	24	5	80	256	814	19	59	67	68
Osceola.....	0	1	0	0	0	36	5	1	6	45	113	2	15	12	8
Palm Beach.....	0	10	7	0	0	415	35	2	68	313	842	14	82	68	86
Pasco.....	0	2	1	0	0	73	11	0	7	69	190	2	20	11	13
Pinellas.....	3	14	13	0	0	1,078	66	9	115	777	2,292	26	279	69	110
Polk.....	1	4	4	0	0	274	35	1	48	236	608	7	75	55	62
Putnam.....	2	0	1	0	0	45	10	0	10	31	127	16	11	15	16
St. Johns.....	0	3	1	0	0	64	5	2	3	41	120	5	26	4	6
St. Lucie.....	0	3	5	0	0	64	6	0	23	54	156	3	18	11	17
Santa Rosa.....	0	0	1	0	0	15	5	1	5	18	69	6	10	8	9
Sarasota.....	0	4	2	0	0	165	7	3	17	101	391	7	45	18	27
Seminole.....	1	4	3	0	0	86	8	0	17	48	158	5	14	13	26
Sumter.....	0	0	1	0	0	17	5	0	3	14	41	0	1	7	6
Suwannee.....	0	0	1	0	0	16	4	0	8	31	66	1	5	2	7
Taylor.....	0	1	1	0	0	19	3	0	4	18	43	3	6	4	10
Union.....	0	2	1	0	0	4	1	0	0	9	26	0	2	3	0
Volusia.....	0	11	5	0	0	320	24	2	51	199	714	6	95	37	46
Wakulla.....	1	0	0	0	0	6	1	0	1	11	12	1	3	3	2
Walton.....	0	1	1	0	0	17	8	0	7	19	50	2	3	5	4
Washington.....	0	0	0	0	0	19	4	1	4	23	33	1	6	1	9

*Includes all vascular lesions affecting the central nervous system.

TABLE 14
MARRIAGES BY RACE, DIVORCES AND ANNULMENTS
FOR FLORIDA, AND EACH COUNTY, 1961

COUNTY	MARRIAGES			DIVORCES	ANNUL- MENTS
	Total	White	Nonwhite		
STATE.....	40,984	34,080	6,854	21,492	190
Alachua.....	513	342	171	170	3
Baker.....	74	58	16	94	0
Bay.....	505	411	94	307	2
Bradford.....	90	74	16	46	2
Brevard.....	857	755	102	680	4
Broward.....	2,869	2,362	507	1,281	6
Calhoun.....	38	36	2	52	0
Charlotte.....	128	119	9	76	3
Citrus.....	109	90	19	58	0
Clay.....	144	125	19	74	1
Collier.....	214	193	21	58	0
Columbia.....	182	133	49	85	0
Dade.....	8,549	7,374	1,175	4,852	57
DeSoto.....	125	101	24	42	1
Dixie.....	42	38	4	9	0
Duval.....	2,909	2,304	605	1,887	18
Escambia.....	1,530	1,209	321	847	5
Flagler.....	60	41	19	146	3
Franklin.....	57	41	16	19	0
Gadsden.....	191	94	97	78	0
Gilchrist.....	56	47	9	9	0
Glades.....	33	27	6	6	0
Gulf.....	76	57	19	34	0
Hamilton.....	67	46	21	31	0
Hardee.....	151	151	17	262	5
Hendry.....	147	116	31	60	0
Hernando.....	158	139	19	47	1
Highlands.....	203	161	42	73	2
Hillsborough.....	3,433	2,932	501	1,824	3
Holmes.....	113	109	4	56	0
Indian River.....	230	178	52	73	3
Jackson.....	181	136	45	74	2
Jefferson.....	53	25	28	27	0
Lafayette.....	30	25	5	3	0
Lake.....	478	385	93	680	2
Lee.....	474	403	71	214	1
Leon.....	481	327	154	215	0
Liberty.....	85	62	23	35	0
Madison.....	12	12	0	10	0
Manatee.....	73	59	14	24	0
Marion.....	615	516	99	201	2
Martin.....	430	289	141	113	2
Monroe.....	145	111	34	64	0
Nassau.....	479	442	37	280	1
Okaloosa.....	83	64	19	48	0
Okeechobee.....	326	298	28	289	2
Orange.....	74	64	10	33	0
Osceola.....	2,183	1,848	335	516	8
Palm Beach.....	215	178	37	74	0
Pasco.....	1,889	1,525	364	790	5
Pinellas.....	384	353	31	143	0
Polk.....	2,818	2,542	276	1,301	15
Putnam.....	1,832	1,529	303	834	13
St. Johns.....	228	150	78	436	2
St. Lucie.....	271	210	61	241	4
Santa Rosa.....	343	244	99	147	0
Sarasota.....	206	189	17	83	1
Seminole.....	653	596	57	295	2
Sumter.....	380	300	80	221	0
Suwannee.....	149	113	36	107	0
Taylor.....	149	107	42	37	1
Union.....	101	75	26	18	0
Volusia.....	38	28	10	22	0
Wakulla.....	978	822	156	494	4
Walton.....	49	40	9	51	0
Washington.....	91	77	14	36	0

TABLE 15
VITAL STATISTICS SCOREBOARD
BASED ON PROMPTNESS AND COMPLETENESS OF
CERTIFICATES FILED IN 1961

COUNTY	Rank	Percent of Certificates Filed on Time		Percent of Complete Certificates		Percent of Monthly Reports Submitted on Time	Total Score (Maximum = 500)	Change from 1960 Total Score
		Births	Deaths	Births	Deaths			
STATE		94.8	97.6	99.6	99.5	98.0	484.5	+ 0.8
Jax-Duval	1	99.9	100.0	99.9	99.8	100.0	499.6	+ 0.2
Broward	2	99.1	99.9	99.7	99.7	100.0	498.4	+ 1.2
Dade	3	98.0	100.0	99.9	99.9	100.0	497.8	- 1.0
Orange	4	98.9	98.7	99.9	99.8	100.0	497.3	- 0.8
Hillsborough	5	97.9	99.6	99.9	99.9	100.0	497.3	- 1.0
Citrus	6	98.6	100.0	98.6	99.1	100.0	496.3	- 1.3
Jefferson	7	99.5	97.1	98.6	100.0	100.0	495.2	- 2.4
Pinellas	8	96.4	98.8	99.9	99.8	100.0	494.9	+11.2
Escambia	9	96.9	97.9	99.8	99.9	100.0	494.5	+ 2.5
Alachua	10	95.9	98.8	99.9	99.8	100.0	494.4	+10.1
Seminole	11	99.5	99.2	98.0	97.2	100.0	493.9	+ 2.1
Madison	12	97.3	99.2	98.1	99.2	100.0	493.8	+26.7
Martin	13	96.5	99.4	100.0	96.8	100.0	492.7	- 3.3
Baker	14	99.5	97.1	98.9	95.7	100.0	491.2	+ 2.6
Clay	15	94.0	97.0	99.4	94.4	100.0	489.8	+24.2
Palm Beach	16	91.5	98.0	99.7	98.1	100.0	488.6	- 0.4
Washington	17	98.8	91.5	100.0	98.1	100.0	488.4	+ 2.5
Volusia	18	99.1	98.4	99.7	99.4	91.7	488.3	- 7.2
Hernando	19	91.0	99.3	99.5	97.9	100.0	487.7	- 2.3
Lee	20	89.3	99.5	99.2	99.3	100.0	487.3	+17.0
Suwannee	21	95.2	100.0	100.0	100.0	91.7	486.9	- 8.9
St. Johns	22	97.7	97.4	99.8	97.4	91.7	484.0	+22.6
Charlotte	23	94.5	96.5	97.3	95.5	100.0	483.8	+ 2.0
DeSoto	24	95.4	98.2	99.5	98.9	91.7	481.7	+15.0
Sarasota	25	99.4	99.8	99.6	99.1	83.3	481.2	-16.2
Levy	26	94.4	89.2	99.4	98.0	100.0	481.0	0
Gulf	27	94.1	89.7	96.7	100.0	100.0	480.5	- 4.9
Polk	28	98.6	98.5	99.6	99.5	83.3	479.5	-16.0
St. Lucie	29	86.6	92.8	99.2	99.3	100.0	477.9	-17.2
Bay	30	88.8	90.1	99.6	98.6	100.0	477.1	+23.6
Manatee	31	87.5	99.0	99.2	99.2	91.7	476.6	- 4.2
Indian River	32	98.4	97.7	98.2	98.4	83.3	476.0	-16.7
Hendry	33	85.4	98.5	99.0	97.4	100.0	475.3	+ 8.3
Glades	34	100.0	100.0	100.0	100.0	75.0	475.0	0
Lafayette	35	82.4	100.0	100.0	100.0	91.7	474.1	+42.9
Wakulla	36	93.3	87.5	99.3	100.0	100.0	474.1	-25.9
Brevard	37	87.7	88.5	99.6	98.2	100.0	474.0	+23.3
Walton	38	91.4	90.8	99.6	100.0	91.7	473.5	+19.3
Taylor	39	87.5	97.3	98.6	98.2	91.7	473.3	-12.1
Okaloosa	40	88.7	85.7	99.2	99.3	100.0	472.9	+15.1
Franklin	41	95.9	94.0	100.0	98.8	83.3	472.0	-19.4
Bradford	42	98.3	98.5	99.4	100.0	75.0	471.2	+45.6
Putnam	43	92.3	89.7	98.7	98.5	91.7	470.9	-10.5
Lake	44	86.9	87.2	98.6	97.9	100.0	470.6	+10.3
Holmes	45	97.8	88.5	98.9	100.0	83.3	468.5	-13.9
Pasco	46	84.8	94.1	97.2	98.6	91.7	466.4	+13.7
Flagler	47	96.4	94.4	100.0	100.0	75.0	465.8	+ 0.8
Hardee	48	92.8	98.9	98.2	100.0	75.0	464.9	+ 9.4
Hamilton	49	85.6	76.7	98.5	100.0	100.0	460.8	+ 5.3
Gadsden	50	76.9	93.2	99.2	98.4	91.7	459.4	-13.7
Dixie	51	70.0	88.5	100.0	100.0	100.0	458.5	- 2.9
Calhoun	52	68.8	89.1	99.3	100.0	100.0	457.2	+ 8.1
Monroe	53	82.5	91.3	99.2	98.5	83.3	454.8	-15.9
Osceola	54	67.4	98.5	98.2	98.9	91.7	454.7	- 9.4
Sumter	55	85.3	78.9	97.8	98.7	91.7	452.4	+10.5
Union	56	70.5	82.5	96.7	100.0	100.0	449.7	+ 5.4
Highlands	57	61.0	96.3	99.2	99.6	91.7	447.8	-24.7
Marion	58	70.5	95.1	99.2	99.3	83.3	447.4	-14.9
Leon	59	84.7	89.5	99.2	98.4	75.0	446.8	-29.1
Jackson	60	81.4	75.1	99.3	98.7	91.7	446.2	- 2.0
Santa Rosa	61	74.5	81.9	98.0	98.0	91.7	444.1	-12.3
Okeechobee	62	64.6	81.4	99.4	94.9	100.0	440.3	- 6.9
Collier	63	74.3	89.1	99.0	97.0	75.0	434.4	+55.0
Gilchrist	64	87.5	61.1	100.0	100.0	83.0	431.9	-35.1
Nassau	65	60.8	74.2	99.7	96.9	100.0	431.6	- 4.7
Columbia	66	74.2	86.9	98.9	98.4	66.7	425.1	-40.7
Liberty	67	62.5	72.2	75.0	100.0	83.3	393.0	-40.3

BUREAU OF MATERNAL AND CHILD HEALTH 65

L. L. PARKS, M.D., M.P.H.,
 Director

E. L. FLEMMING, Ed.D.,
 Assistant Director

The staff remained the same as for the previous year except that the pediatric consultant, Nicholas G. Alexiou, M.D., returned in June from a year of training in public health at Yale University. In the fall the assistant director took leave for a year for postgraduate education. A health educator, Mrs. Jean Young, was employed by the State Department of Education to assist in the summer Teachers Project for a temporary period of five months and worked out of the office of this bureau.

The staff is concerned with the health problems of mothers and children; it is small and acts in a consultant capacity to the county health departments. Funds are made available to them from the Children's Bureau to strengthen the services in the counties. Funds are also made available from the Children's Bureau for special projects such as the Migrant Project, the Developmental Evaluation Clinic and the Premature Demonstration Program, all described later in this bureau's report.

There were a number of interesting activities to which the staff gave special attention during the year; namely, phenylketonuria surveys, evaluating premature centers in a small number of hospitals, promoting workshops, summer courses and conferences with teachers and health department personnel, orientation sessions on mental retardation, promoting planned parenthood services in the maternity clinics of the state and reviewing films that will be of value in teaching health to school children and mothers. Efforts were made with some degree of success to give recognition to schools that had conducted outstanding school health programs to promote better school health services. Frequent conferences were held with representatives of other agencies such as the State Department of Education, State Department of Public Welfare, Children's Commission, Parent-Teacher Associations, Florida Committee on Rural Health and medical society committees on maternal and child health problems. The promotion of postgraduate courses for nurses and physicians occupied much time of several members of the staff. Some of the above activities will be described in more detail later in this report.

MATERNAL HEALTH

The provisional maternal mortality rate of 5.0 per 10,000 live births for 1961 shows that the number of maternal deaths is about the same as 1960. There were 58 maternal deaths during the year. Each maternal death is studied and a determination made wherever possible as to the cause of death and how it might have been prevented. This study is being made in cooperation with the Maternal Health Committee of the Florida Medical Association.

There were 217 midwives licensed to practice during the year as compared with 228 for 1960.

Of the 115,610 infants delivered in 1960, medical doctors delivered 105,734 or 91.5 per cent of the total births; osteopathic physicians delivered 3767, or 3.3 per cent; midwives delivered 5744, or 5.0 per cent;

naturopaths delivered 204 or 0.2 per cent; two births were attended by chiropractors and 159 by other attendants. There were 108,650 births occurring in hospitals, or 94.0 per cent of the total births; the data show 99 per cent of white births occurred in hospitals, which was the same as it was for 1959. The percentage of nonwhite deliveries in hospitals was 79.3 per cent for 1959 and it rose to 80.4 for 1960.

The problem of illegitimacy seems to be increasing as shown by the following information taken from previous annual reports:

Nonwhite illegitimate birth percentages are ten times higher than those for whites. Every effort is made to make sure that all mothers receive adequate prenatal care. More and more of the maternity clinics are providing planned parenthood services to patients who are in need of this service and there is a growing interest in this field.

TABLE 16
ILLEGITIMATE BIRTHS PER 1000 LIVE BIRTHS
FLORIDA 1940, 1945, 1950, 1955 AND 1960

RACE	YEAR				
	1940	1945	1950	1955	1960
Total.....	63.2	61.5	79.8	88.7	95.5
White.....	17.0	19.0	17.6	21.6	27.6
Nonwhite.....	174.5	183.5	231.9	260.3	279.4

INFANT AND PRESCHOOL HEALTH

In 1961 there were 116,886 births, or a rate of 22.7 per 1000 population. For the same period there were 3415 infant deaths reported and the rate was 29 per 1000 live births. Immaturity continues to be reported as the leading cause of death. The county health departments promote care of the immature and more emphasis is being placed upon preparing the home for their care prior to discharge from the hospital. This is in keeping with the philosophy of the teaching at the Premature Demonstration Center in Miami. Well baby clinics continue to be conducted in the majority of counties.

The total number of immunizations reported by the health departments shows there were 85,970 immunizations for smallpox, 142,455 for diphtheria, 204,590 for tetanus, 88,040 for whooping cough and 276,848 for polio during the year. There was an increase in the number of immunizations for all of the above over the previous year, except polio, which showed a decrease.

HEALTH SERVICES FOR MIGRATORY AGRICULTURAL WORKERS

Public Health Service publication No. 540, revised 1960, lists 40 counties in Florida which have migrants, and their estimated peak popu-

lation as 51,655. Palm Beach County is reported to have 10,400, Dade 8550 and Broward 5300. The number of migrants in the other counties varies downward to a minimum of 110. The migrants remain in Florida from about November to May. These estimates are probably conservative because other estimates have been made that Palm Beach County alone has 15,000 to 20,000 at the peak of the season.

The health problems of the migrants vary from community to community depending upon many factors such as housing facilities and local medical facilities. The health problems of migrants do not differ from those of many other communities where there are medically indigent persons, except that in the area where there are migrants, there are many more medically indigent persons for whom to provide health services.

The Children's Bureau provided funds to help support a five-year project which ended June 30, 1961. The purpose of this grant was to extend health services to the agricultural migrants in Florida through the health departments in counties where most of the migrants are located. Migrants coming into the state place a heavier load upon many communities, and outside assistance is needed. Local funds have not been sufficient to provide the necessary health department personnel to take on the needed services. The Children's Bureau special grant helped to provide 17 health workers, some of whom are on a part-time basis, for work in four different counties. Efforts have been made to use the team approach so as to cover all the public health services needed by the migrants.

A special report has been published entitled "On the Season," which summarizes the services and problems encountered during the five-year period. This report has been distributed to all state health departments and other organizations and agencies concerned with migrants, with many favorable comments. Copies of this publication as well as the one entitled "They Follow the Sun" may be obtained upon request.

A request was made to the Children's Bureau asking that agency to continue to provide financial help to support health services among the migrants, and this was approved so that the services already in operation could be continued.

At the present time the health services are being extended from the Belle Glade area to other areas of Palm Beach County by means of mobile clinics and night clinics. This service makes it possible for the migrants to work during the day and bring the mothers and children in for services after working hours. Additional personnel have been made available to other areas with a large concentration of migrants, mainly Dade, Lee and Collier Counties.

Health services to migrants include the usual services such as nursing supervision, medical and dental services, information on nutrition, social welfare services, and to a limited extent general health education, although the educational services are not as fully developed as they should be at this time. In the opinion of the bureau medical care for the migrants is being provided as well as it can be in many areas among the low income

group, although there is the usual problem of persuading patients to come in early for diagnosis and treatment. There has been excellent cooperation on the part of the local physicians in the areas where the majority of the migrants live. The county health departments license labor camps under state laws which means frequent inspections by the county health department sanitarians.

Health problems are only a part of the many problems of the migrant. It has been found that all agencies concerned with the migrant, such as the schools, welfare agencies, voluntary agencies and others are rendering what services they can with their respective staffs. Experience has been that most of the farmers are making an effort to work with the official agencies concerned with migrants. Efforts have been made to bring together the farmers, crew leaders and the persons in charge of securing migrant labor but this has not been as successful as desired. However, much progress is being made in providing better health services to the migrants.

POSTGRADUATE OBSTETRIC-PEDIATRIC SEMINAR

For the first time since this Seminar was established in Florida in 1951, the location was changed from the east to the west coast of Florida. This year another state, Mississippi, joined the group. The eleventh annual seminar was held in St. Petersburg Beach in August under the sponsorship of the Bureaus of Maternal and Child Health of the State Health Departments of Florida, Georgia, Alabama, South Carolina and Mississippi; the Maternal Health Committee of the Florida Medical Association and the Florida Academy of General Practice. As was expected, the change in location caused a shift in the number of physicians attending from the northeast and central areas of Florida to those living in the southwest section. An outstanding faculty presented a program which included lectures and panel discussions on obstetrics, pediatrics, psychiatry and medico-legal problems. Table 17 shows the registration by states and professions.

TABLE 17
1961 POSTGRADUATE OBSTETRIC-PEDIATRIC SEMINAR
REGISTRATION BY STATES

STATE	Doctors	Nurses	Other	Total
Alabama.....	32	5	0	37
Georgia.....	40	5	1	46
South Carolina.....	25	0	0	25
Mississippi.....	7	0	0	7
Other States.....	4	0	0	4
Florida.....	112	54	4	170
TOTALS.....	220	64	5	289

PREMATURE PROGRAM

To lower Florida's infant death toll was one of the prime objectives of this bureau for the year just past. While Florida's infant death rate

improved slightly, it continued to be higher than that for the nation and placed the state in the unenviable position of 38th in the rank of 50 states in 1960.

Since deaths among premature infants influence the total infant death rate, increased emphasis was placed during the year on the training of physicians and nurses in the care of babies born too soon. Two five-day seminars for nurses and one short course for physicians were held at the Premature Demonstration Center, Jackson Memorial Hospital, Miami. The latest procedures and scientific information were presented. Seventy-two nurses attended from 49 hospitals geographically scattered throughout Florida. This project is sponsored jointly by Jackson Memorial Hospital, University of Miami School of Medicine, U. S. Children's Bureau and the State Board of Health.

In addition to the 72 registered nurses who enrolled in the course, numerous student nurses from the several schools of nursing affiliated with Jackson Memorial Hospital also had experience in the premature nurseries. This was also true of interns and medical students at the teaching hospital.

A one-day Demonstration Clinic on this same subject was held in Jacksonville, the first planned exclusively for hospitals in a metropolitan area. It was attended by approximately 130 persons in nursing categories. Public health nurses also attended. An evening session for physicians drew an audience of approximately 35 physicians, including those in private practice, interns, residents in pediatrics and obstetrics. A team of physicians and nurses from the Premature Demonstration Center in Miami provided programs for the two groups.

Plans have been made to offer a longer training program to graduate nurses with the five-day seminar as a prerequisite. Three additional weeks of supervised work in premature nurseries will be available early in 1962 and will follow immediately each seminar for nurses.

To strengthen the understanding of personnel dealing with premature infants and their families it was arranged that a medical social work consultant be added to the staff of the Premature Demonstration Center early in 1962. It was anticipated that this individual would assist in the Center, in outpatient clinics and with training programs for personnel in related services.

During the year the pediatric consultant of the bureau provided services to a number of hospitals requesting assistance with problems in premature, newborn and other nurseries.

A slide series on premature infant care made from pictures and experiences at the Center was used by hospitals, schools of nursing and other groups to illustrate various phases and problems in care of the babies born too soon. Slide sets were made available to nine other state health departments for use in educational programs and to Ceylon and Chile.

Manuals of procedure for use in premature nurseries were distributed to hospitals not previously receiving them. The manual was pre-

pared at the Premature Demonstration Center with the assistance of the Department of Pediatrics, University of Miami School of Medicine and financed by this bureau. Other pertinent materials were distributed to individuals and groups interested in various phases of infant care. Exhibits were prepared and displayed at several professional gatherings. Incubators and other equipment were placed on permanent loan to hospitals and nurseries.

SCHOOL HEALTH PROGRAM

The health department is given the responsibility for school health with the State Department of Education. Maternal and child health activities here are in the field of promoting preschool physical examinations on all children and adequate up-to-date school health records kept in the cumulative folder of each child in school. Screening procedures for physical defects, such as hearing, vision and dental, by local health department staffs are continuous throughout most of the state.

Some attempts have been made to assist public health nurses and teachers to learn the value of adequate physical and mental appraisal of each child in school, particularly those who are not performing up to expectation. The staff has had frequent conferences and workshops with teachers, pupils, parents and civic groups, with emphasis on adolescent health. It appears that there is a very definite lack of training among teachers on how health should be taught in secondary schools. Efforts are being made to promote the subject of health in teacher training institutions. There should be a multiple-discipline approach to the child in school as a service to him and school personnel to help them understand the performance of the student. To do more, however, will require additional personnel, or greater use of personnel from other divisions and bureaus.

Public health nurses visit schools regularly and routinely in most counties; however, the time allotment of the nurse to the schools is limited because of her many other service programs. The Gray Lady Program is functioning well in some counties. Much is still needed to make the school program what it could be in the health field.

TEACHERS PROJECT

Participating universities and county health departments decided that the Teachers Project in Health Education should be repeated in 1961 for the sixth year. Teachers, participating universities and health departments agreed that the project is one of the most valuable carried on in the area of school health education in Florida.

Four institutions: Bethune-Cookman College, University of Florida, University of Miami and Florida State University again took part by supplying the academic portion of the course. Twenty-two county health departments provided field experiences for teachers enrolled from their counties. A total of 65 teachers completed the course.

The purpose of the course was to provide teachers an opportunity to learn of health resources in their communities so that these might be

utilized in the school health programs and for the benefit of Florida boys and girls. All teachers reported that their school health programs had been greatly strengthened as a result of the work. Following the close of the project it was decided that it should be conducted again in 1962 with certain aspects strengthened to include suggestions made by teachers during evaluation sessions.

MENTAL RETARDATION

This bureau is concerned with the entire field of mental retardation but is active only in certain aspects of the problem.

Ongoing activities include orientation talks and programs at the several Sunland Training Centers. These are two-day programs held regularly in cooperation with the personnel of the Sunland Training Centers and the State Board of Health in addition to representatives of the local communities interested in the problem. The coordinator of the program is a public health nurse whose headquarters are at the Sunland Training Center in Gainesville. Her duties are to arrange for speakers, programs, workshops, to act as consultant and liaison with the voluntary agencies and mental retardation associations in the state.

The main purpose of the program is to make professional persons aware of the facilities, what they offer and how they operate, what the limitations and strengths are and how the patients and inmates live, work and learn. With this knowledge, these people can return to their communities and inform their own people of the mental retardation institutions of the state from firsthand experience.

Another activity is the early detection, diagnosis and treatment of mental retardation. This is usually accomplished through the well child conferences and clinics held throughout the state as an integral part of the maternal and child health program. Children are brought to the clinics for routine screening procedures, immunizations and physical examinations. This gives an opportunity for the child to be seen early and any defects or abnormality that are present has a chance to be noted and proper referral made.

A special program of early diagnosis and treatment is noted in the phenylketonuria (PKU) survey of the state. Through this program special classes for retarded children are screened for PKU and in the case of positive identification, a home and family investigation is made to detect others with the disorder. Eligible patients are provided a special dietary supplement through this bureau which helps to prevent mental retardation. A statewide registry is kept in the bureau of all known cases of PKU and through arrangements with the Bureau of Laboratories, confirmatory serum tests for diagnosis are made available to the clinics and physicians of the state. The hope is that the survey of high risk population groups such as the special classes of public schools will offer a higher casefinding rate and lead to the families of PKU patients where there may be a younger sibling who would be a candidate for early preventive treatment diet.

Private physicians and clinics throughout the state seeing well children are encouraged to perform the test frequently in the first year of life for this condition but the bureau gives no active support and offers the confirmatory test only through the Bureau of Laboratories services. Pamphlets and nutrition consultation have been made available to physicians of known PKU families.

The biggest gap in our knowledge and work is our complete lack of knowledge of the extent of the mental retardation problem and in the apparent disinterest in strengthening regular maternal and child health programs to prevent mental retardation and to coordinate research activities in the state.

DEVELOPMENTAL EVALUATION CLINIC

This special project in mental retardation is located in Miami and during 1961 completed a total of 116 comprehensive evaluations. Seventy-eight were new patients admitted to service and 38 were re-evaluations of children seen in the previous year. By the end of the year the clinic had 200 active cases.

The clinic staff is composed of a part-time pediatrician who serves as director and a clinical psychologist, two psychiatric social workers, a public health nurse, a speech specialist, a Fellow in Pediatrics, a secretary and a clerk-typist. During the past year the requests for service have increased as has the caseload. Since most of these children are in the pre-school age group, the needs of the patients and their families change from year to year. In addition, the children coming to the clinic are a very heterogeneous group presenting a wide variety of problems and etiological causes. Because the clinic is seeing such a variety of problems, the diagnostic and counseling services which are offered by the clinic have to be extensive. It is estimated that approximately 50 per cent of the children seen at the clinic have multiple handicaps. Recommendations of the clinic to the parents have to be coordinated with existing community agencies. At times it is frustrating to find that optimal treatment facilities do not exist to carry out recommendations of the cases evaluated.

One of the original objectives of the clinic, the determination of what services are necessary and available for the proper training and guidance of the mentally retarded child and his family, continues to be worked on by all staff members in a variety of ways.

The public health nurse has continued to make home visits on all new patients admitted to the clinic for service. In addition to aiding some of the parents in a home training and supervision program, conferences are held with the general nursing staff of the Dade County Department of Public Health who are carrying clinic patients as part of their caseload. Forty-three children are being supervised in a home training program, 18 are supervised by the clinic's public health nurse and 25 by the county health nursing staff.

Three members of the clinic staff, the pediatrician, psychologist and social worker, visited Fort Lauderdale, Palm Beach, Orlando, Tampa and

St. Petersburg to meet with county health department staffs and others concerned with services for the retarded child in their communities. These conferences developed out of one of the original intents of the special project, which was to originate methods of casefinding and evaluation which might be incorporated into existing facilities and to translate and transmit up-to-date knowledge regarding the retarded child. A summary of findings and recommendations will be prepared for use by the bureau in its long-range planning.

A Pediatric Fellow sponsored jointly by the clinic and the University of Miami School of Medicine, through a special grant from the Children's Bureau, will complete her two year training program in July 1962, at which time a new Fellow will be appointed. The major portion of this post-residency training has occurred within the Developmental Evaluation Clinic. The Fellow has also been assigned to the Pediatric Neurology Clinic of the School of Medicine, the Cerebral Palsy Clinic, the Dade County Child Guidance Clinic and has been able to effect smoother liaison between these community agencies and the Clinic. This has also served to translate many of the concepts developed at the clinic into different areas of practice with the handicapped child.

In recognition of the increasing importance of training in the area of handicapped children within pediatric practice, a rotating pediatric resident has been assigned to the clinic and fourth year medical students have made weekly visits to the clinic as part of the School of Medicine's program in childhood development in mental retardation. Formal lectures have been given to third year medical students and staff conferences have been held with practicing pediatricians in Miami.

During the summer months, five student fellowships were sponsored at the clinic, four of them by the State Board of Health. Two were graduate psychology students and three were medical students from the University of Miami. One of the medical students was assigned to the Sunland Training Center at Fort Myers as a joint project by the Center and this clinic. This is a logical expansion and there is hope for such combined programs in the future.

Orientation conferences regarding the field of mental retardation in general and the functioning of the Developmental Evaluation Clinic in particular were provided social work students from Florida State University School of Social Welfare, and to nurses from the University of Miami Department of Nursing. Joint conferences with representatives from various community agencies were conducted periodically.

BUREAU OF PREVENTABLE DISEASES

JAMES O. BOND, M.D., M.P.H.
Director

During 1961 several major changes in personnel occurred in the Bureau of Preventable Diseases. In October the director was temporarily assigned to the Office of the Coordinator of Research and Training. The Assistant State Health Officer, C. M. Sharp, M.D., assumed the temporary duties of acting director of the bureau, in addition to his other responsibilities.

During the year the principal activities of the director concerned five special studies. A program was carried out with the Hillsborough County Health Department and the Bureau of Laboratories to evaluate the effectiveness of purified Salk vaccine. The detailed results are described in the Division of Epidemiology and the Bureau of Laboratories reports.

The study of arthropodborne viruses on the Seminole Indian reservations in South Florida required the coordination of personnel from the Division of Epidemiology, the Communicable Disease Center, the Bureau of Laboratories and the county health departments. As a part of this study a serological and polio immunization survey was carried out in Highlands, Glades and Hendry Counties involving over 600 families.

Special programs to evaluate tuberculin tests were carried out in Duval County and the Sunland Training Center in Gainesville. The activities of a medical student and physicians from the Division of Epidemiology and Division of Tuberculosis Control were supervised and coordinated in carrying out these studies.

In cooperation with the Hillsborough County Health Department and the Hillsborough County Medical Society programs were initiated to evaluate oral polio vaccines in Hillsborough County. During the fall monovalent vaccines were tested on 304 children. This was also a preliminary study for large scale field trials to be carried out in Hillsborough County in 1962 using trivalent oral polio vaccines.

The director of the bureau assisted in the investigation of four large outbreaks of communicable diseases in 1961. The first was an epidemic of infectious hepatitis in Cross City. The second was a relatively small outbreak of poliomyelitis in Manatee County which involved multiple types of poliomyelitis and extensive investigation and consultation over the decision as to whether oral vaccine should be used to abort an epidemic. The investigation of staphylococcal pyoderma in a large Tampa hospital will be described in detail in the report of the Division of Epidemiology. In the fall months an outbreak of encephalitis in Pinellas, Sarasota and Manatee Counties received considerable attention from the staff of the Division of Epidemiology, Division of Veterinary Public Health, the Laboratories and coordinated assistance of the Communicable Disease Center.

During the year some administrative attention was given to two of the ongoing research projects within the bureau. A renewal application for a National Institutes of Health grant to support the special study of the Unclassified Mycobacterial Infections was prepared. This is reported in more detail by the Division of Tuberculosis Control. In connection with a special study of chronic illnesses in Dade County, the fourth and last of a series of quarterly samples of all physicians in Dade County was selected in February. The 13,713 reports of visits made to physicians in Dade County during these four quarterly samples were processed and tabulated on IBM. The purpose of this study is to develop a methodology for obtaining reports of chronic, noninfectious diseases from private physicians, using a sampling system that will not be burdensome to any one physician.

The director represented the State Health Officer on the Surgeon General's Committee on Poliomyelitis Control. Assistance was given to the preparation and presentation of the five-year report of the Unclassified Mycobacterial Infections at the annual meeting of the American Public Health Association in Detroit.

DIVISION OF EPIDEMIOLOGY

CHARLES M. WATERS, JR., M.D.
JAMES F. MOLLOY, III, M.D.
Assistant State Epidemiologist

INFECTIOUS HEPATITIS

For the past two years a remarkable increase in the occurrence of infectious hepatitis has taken place in Florida. Reported cases of infectious hepatitis rose from 342 in 1959 to 1108 in 1960 and 1442 in 1961. There has been a steady annual increase over the past five years reaching the highest number of cases ever reported for Florida in 1961.

During the past year, the division conducted epidemiological investigations of infectious hepatitis outbreaks in Chipley, Cross City, Graceville and Miami. Person-to-person contact was the primary method of spread and only one common source could be found which was thought to be responsible. This was an outbreak associated with chimpanzees.

Figure 2 illustrates the seasonal pattern of infectious hepatitis for the current year in comparison with the pattern for the years from 1952 through 1960. The peak of reported cases occurred in May 1961, which was one month later than in 1960.

Table 18 outlines the various attack rates for the group under consideration. The attack rate for the white population is approximately twice as high as that for the nonwhite group, which is similar to the 1960 data. Attack rates for males and females were about equal.

Infectious hepatitis occurred more frequently in the younger age groups with the largest percentage of cases occurring between the ages

of five and nine. The 10 to 14 and 15 to 19 age groups also had high attack rates.

The only major change in the incidence of infectious hepatitis by counties was the shift to the western peninsular counties.

A small supply of gamma globulin was again made available to the State Board of Health and was distributed to county health departments. Conflicting recommendations on the dose of gamma globulin for the prevention of infectious hepatitis in infants and children appeared in the literature during 1961. On the basis of 10 years of satisfactory experience, and published reports by many workers, using the dosage of 0.01 ml. per pound of body weight, the State Board of Health continued to recommend that dosage for the prevention of infectious hepatitis in both children and adults.

POLIOMYELITIS

Reported cases of poliomyelitis declined from 66 in 1960 to 41 in 1961. Thirty-seven of these were paralytic cases. This compares with 197 cases reported in 1959 and 252 reported in 1958. There were no deaths from poliomyelitis during the year. In cooperation with the U. S. Public Health Service, the intensive poliomyelitis surveillance program which had been instituted in 1957 was again carried out by the division.

For the first time, the incidence among the white race was only slightly higher than the nonwhite. In the past, the incidence among the white race has been consistently higher than the nonwhite, despite the strikingly opposite situation in the rest of the nation. The rates in males have been consistently higher than rates in females. There has been no marked change in the past three years in the age-specific attack rates with the rates in children under age five remaining quite high. The peak occurrence of reported poliomyelitis by month occurred in 1961 in the month of July, which was expected based on the seasonal pattern of recent years. It is interesting to note that nine of the 36 paralytic cases had had three or more Salk immunizations.

Two epidemics were reported in the state and investigations were carried out by this division. Eight cases of paralytic poliomyelitis suddenly occurred in Gadsden County during July, whereas none had occurred during the first six months of the year. All the cases were non-immunized preschool Negro children of the lower socio-economic group widely scattered throughout the county. Neither person-to-person spread nor a common source could be determined. Type I poliovirus was isolated from four of the cases. A mass Salk immunization program was carried out by the Gadsden County Health Department. No additional cases occurred in the county.

Five cases of paralytic poliomyelitis occurred in Manatee County from mid-April through June. Three of these were preschool age Negro children, none of whom had received any prior Salk vaccine. A 12 year old white male and a 20 year old female were the other two cases. Epidemiologic studies conducted by this division and county public health

nurses indicated a geographic association of four of these cases; all of them lived in nearby Palmetto. A Type I poliovirus was isolated from the 12 year old child with bulbar poliomyelitis. One of the Negro children showed a significant rise in antibodies against Type III poliovirus, but results were inconclusive on the other three paralytic cases. An intensive Salk vaccination program was carried out following this outbreak.

This division cooperated in carrying out a poliomyelitis immunization survey in Manatee County in July. In summary, the white community was well immunized, particularly in the Bradenton area where 92.6 per cent of the school age children had received three or more Salk injections. However, the nonwhite population was very poorly protected with as few as five per cent of the preschool children with three or more shots, and only 32 per cent of the school age children immunized.

This division also participated in a poliomyelitis immunization survey carried out in Highlands, Glades and Hendry Counties. These surveys are based on the Communicable Disease Center quota sampling technique. The results indicated that 51 per cent of the preschool age children, 67 per cent of the school age children and 40 per cent of the persons aged 15 to 40 were adequately immunized against poliomyelitis. Four hundred and seventy-eight blood specimens were obtained for poliomyelitis antibody studies, which was 64 per cent of the population in the households interviewed.

During 1961, two poliomyelitis vaccination programs were carried out in Hillsborough County by the County Health Department and the County Medical Association. One hundred and forty-two children under six years of age participated in a Purivax study from March through August. The serum neutralizing polio antibody response following two injections of Purivax vaccine showed that 37.9 per cent converted against Type I poliovirus, 61.5 per cent converted against Type II and 87.1 per cent converted against Type III. The percentages of conversion in those receiving two injections of Salk vaccine were 29.1 per cent converted against Type I poliovirus, 74.6 per cent converted against Type II and 31.5 per cent converted against Type III.

A Sabin oral monovalent poliomyelitis vaccination program was carried out during the fall. Three hundred and four children, age six months to six years, not having received more than two Salk shots were fed Sabin monovalent vaccines Types I, II and III. Pre- and post-feeding titers of poliomyelitis neutralizing antibodies were measured. One hundred and thirty-three of these children had poliomyelitis neutralizing antibody titers of less than 1:4 prior to receiving the vaccine. Following administration of the vaccine, 78.7 per cent converted* against Type I poliovirus, 92.1 per cent converted against Type II and 85.4 per cent against Type III.

*Conversion is defined as change in titer by MIT test from <1:4 to 1:16 or greater.

DIPHTHERIA

A total of 43 diphtheria cases were reported in Florida in 1961 as compared with 73 cases in 1960. One diphtheria death occurred during the year in Putnam County.

The majority of cases occurred in Duval, Hillsborough, Polk and Pinellas Counties. In this last county, a sharply localized outbreak of eight cases occurred in August which was investigated by the Pinellas County Health Department and this division. All of the cases came from two adjacent Negro communities with approximately 50 households in each community and a total population of the two communities estimated at between 700 and 800 people. Approximately 30 per cent of the pre-school and school age children in the communities had completed their DPT immunizations. Three hundred and forty-seven people were cultured and a total of 54 diphtheria carriers were discovered. A patient with skin ulcers that contained diphtheria organisms was found during the investigation. The clinical disease was mild, consisting of nothing more than a slight elevation in temperature, a mild pharyngitis and malaise. None of the cases were hospitalized; all were treated at home or in the physician's office with penicillin and antitoxin. All organisms isolated were of the mitis strain virulence positive. Due to crowded living conditions, person-to-person spread was considered the most probable means of transmission.

Reported diphtheria cases are about equally distributed between the races and the sexes. Two-thirds of these occurred in children under nine years of age, and more than half of these were four years of age or under. This disease continues to have its highest attack rate in preschool unimmunized Negro children.

FOOD POISONING

Three outbreaks of food poisoning were reported during 1961. Approximately 84 persons were involved. Usually the investigation of such occurrences is carried out by the county health department, however, this division did investigate one food outbreak. The patients were found to have become infected with staphylococcal organisms. Epidemiologic evidence indicated that both ham salad sandwiches and pork loaf sandwiches probably were contaminated. The sandwiches had been prepared approximately six to seven hours before being served, and they were allowed to incubate at room temperature during this period of time. Also one of the food service employees had chronic furunculosis.

One outbreak of salmonella food poisoning occurred. The contaminated food was probably cheese pudding. Considering the excellent media which the cheese pudding is for bacteria growth the high attack rate for those having consumed the product, and the manner in which it was prepared and handled, the investigators felt that possibly one of the foodhandlers contaminated this product with salmonella from their hands.

The third food poisoning outbreak investigated occurred at a church supper. All of the food served was highly contaminated with staphylococ-

cal and the possible source was never determined. The food had been prepared some six to eight hours prior to serving and was allowed to incubate at room temperature.

Approximately 106 other persons were reported as having food poisoning in 1961 and almost all of these were individual cases.

BACILLARY DYSENTERY

Reported cases of bacillary dysentery rose from 84 in 1959 and 112 in 1960 to 454 in 1961. Approximately one-half of the 67 counties reported at least one case of bacillary dysentery with most of the cases reported from the larger counties. Lee County was an exception to this, as 106 cases occurred there during 1961. Over one-fourth of the reported cases occurred in children less than four years of age. The reported cases are about equally distributed between the races.

This division cooperated in carrying out an investigation of one outbreak of bacillary dysentery which occurred at the Sunland Training Center in Ft. Myers. Prior to August 1, 1961, twenty-five cases of bacillary dysentery were reported from this institution. During the month of August, 69 cases of bacillary dysentery, confirmed by cultures, occurred in the school. An additional 100 cases occurred during the next three months before the outbreak ceased. A common source could not be found and it was felt that the mode of transmission was person-to-person.

HOSPITAL ACQUIRED STAPHYLOCOCCAL DISEASE

During 1961, three hospitals asked for epidemiological investigation of their outbreaks of staphylococcal disease. In 1960, the State Board of Health organized a team of epidemiologists, bacteriologists and environmental engineers to provide complete diagnostic and investigative facilities to those hospitals.

An outbreak of pyogenic infections in newborn infants from a hospital in Tampa was investigated by a joint effort of the county health department, State Board of Health and the Technical Development Laboratories of the Communicable Disease Center, U. S. Public Health Service. These infections were predominantly associated with the phage strain 80,81 of *Micrococcus pyogenes*. Clinical lesions included impetigo, conjunctivitis, mastitis, abscess, pneumonia and meningitis in the newborn and breast abscess, or pyoderma, in the mothers. The overall rate of infection in babies during a four-month period was 29.6 per cent and in their mothers it was 10.6 per cent. Specific antecedent factors in the epidemic were not identified due to the delay in investigation. However, multiple factors were found which aided the propagation of the epidemic. The major contributing causes were overcrowding of the infants in a small nursery without adequate ventilation, physically situated on a heavily traveled ward, with a few important breaks in proper nursing and house-keeping techniques. Specific recommendations were made in the areas where lapses in technique occurred and the establishment of effective reporting and education programs were emphasized.

Investigations of two hospitals in Jacksonville were carried out by this division and the Jacksonville City Health Department. One investigation was rather brief as evidence accumulated failed to indicate an outbreak of staphylococcal disease in the newborn nursery. A full-scale investigation in conjunction with extensive phage typing was carried out in the other hospital, as well as an environmental survey. In this institution, the epidemiological information gathered indicated that the outbreak of pyogenic infections in newborn infants was due to failure of isolation technique and some breakdown in aseptic technique. In addition, defects in the environmental aspects of the newborn nursery had been observed.

VIRAL ENCEPHALITIS

After a year of unusual quiescence, arbovirus activity was again apparent in Florida with a series of outbreaks in the fall of 1961. Eastern Equine virus activity was confirmed in pheasants and wild birds and St. Louis Encephalitis, or a closely related group B virus, was demonstrated in humans, mosquitoes, domestic and wild birds.

During October a severe die-off occurred in a flock of pheasants in Brevard County. An investigation by the State Board of Health field and laboratory team involved the collection and examination of domestic birds, quail, pheasants, turkeys, wild birds, mammals and mosquitoes. Eastern Equine virus was isolated from eight pheasants and one bluejay. A surveillance of cases in humans and large animals in the surrounding area was carried out with negative results.

On the western side of the state in the Tampa Bay area, an unusual number of human encephalitis cases were noted from October through early December. A total of 25 cases occurred with seven deaths. Of the total cases, six were in Sarasota County, 10 in Manatee and nine in Pinellas. (The latter county was the site of the extensive St. Louis Encephalitis-like outbreak in 1959 involving 68 clinical cases.) All of the cases presented fever, alterations of sensorium, and varying neurological abnormalities indicating involvement of the central nervous system. Studies of the human sera collected from 20 of these individuals for complement fixation and hemagglutination inhibition antibodies carried out by the State Board of Health and the Communicable Disease Center, USPHS Virology Laboratories revealed 10 positive sera for SLE antibodies. There was no serologic evidence of infection with EE, WE, dengue, Murray Valley, Lymphocytic choriomeningitis or mumps. No viral isolations were obtained from brain tissue collected from three of the seven deceased patients. Four of the seven fatal cases were autopsied and all revealed the typical histopathological findings of acute viral encephalitis.

Certain epidemiological associations of interest were noted amongst the cases. All were white; 15 were female and 13 over the age of 65. The youngest was a 13 year old white male. In Pinellas and Manatee Counties there was a rough geographic concentration of cases, in both instances associated with fresh water mosquito breeding sites. Domestic

chicken flocks were found on the premises of two households and sera from these birds indicated recent infection with SLE virus.

Extensive collections from the biologic environment of human cases were carried out by field teams of the State Board of Health and CDC. Despite an extensive drought, a moderate number of mosquitoes were obtained as late as the second week in December. These were predominantly *A. crucians*, *C. nigripalpus* and *C. salinarius*. These pools have been screened in wet chicks and suckling mice and to date a single pool of mixed *Culex* species has yielded a viral agent identified by the Virology Laboratory of the Florida State Board of Health as belonging to the "B" group.

Although the annual fall migration of birds had passed before the outbreak, several different species of wild and domestic birds were caught and bled. To date, no viral isolation has been reported by the CDC laboratory. However, there is considerable antibody against a Group B agent closely related to SLE in sera collected from mammals and birds in a zoo at the approximate geographic center of the Pinellas County cases. There were also EE antibodies found in chickens in St. Petersburg and Sarasota and WE in a parakeet in the above mentioned zoo. Final reports are not yet available.

A total of 97 virus encephalitis cases were reported in Florida in 1961 which is the greatest number ever reported in one year in the state. This compares with 73 reported in 1959 and 55 reported in 1960. Forty-six of the cases of viral encephalitis reported were of undetermined etiology. In 1961 there were 21 deaths in the state resulting from clinically diagnosed viral encephalitis. A study of the seasonal variation during 1961 showed the pattern of a long season of increased incidence during the fall and winter months without complete regression during the summer months.

TYPHOID

The year ended with a total of 21 reported cases of typhoid. This compares with the 16 reported in 1960 and 25 reported in 1959. This year reported cases are about equally distributed between the races; whereas, in the past the attack rate for the white population has been approximately twice as high as that for the nonwhite group. The disease occurred most frequently in the middle age groups.

During the late fall of 1961, six cases of typhoid occurred in north-west Florida and two nearby states. An intensive investigation by the State Board of Health and Franklin County Health Department traced their source to one small oyster processing plant which employed an oyster tonger who was an unknown typhoid carrier. The organism isolated from him, as well as from each of the cases, was salmonella typhosa, Phage Type A. Until this source was located and further spread prevented, there was a serious threat to the entire oyster industry.

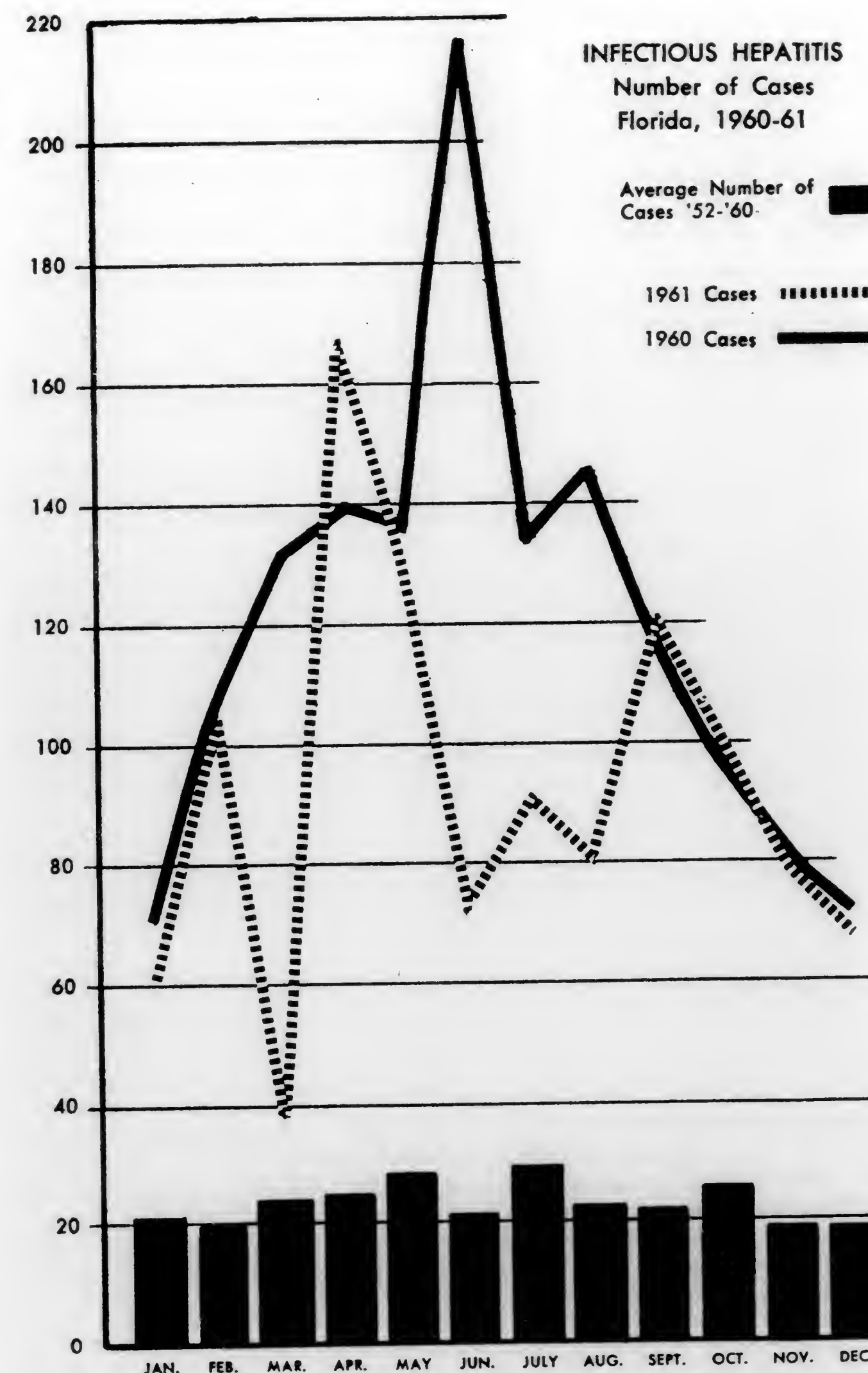
The oyster processing plant was immediately closed after the initial case was recognized and oysters in distributional channels were con-

fiscated. All typhoid cases reported in Florida during 1961 were investigated by this division, and none were found to be related to the specific oyster processing house involved. Intensive investigations of the entire related oyster industry in Florida revealed no evidence of additional sources of contamination with enteric pathogens.

TABLE 18
INFECTIOUS HEPATITIS CASES AND RATES
PER 100,000 POPULATION, FLORIDA, 1961
BY RACE, SEX AND AGE

RACE AND SEX	CASES	RATE	AGE	CASES	RATE
TOTAL.....	1,442	29.1	0-4	86	15.9
White male.....	603	30.1	5-9	312	63.6
White female.....	635	30.8	10-14	218	50.1
Nonwhite male.....	99	22.7	15-24	315	49.7
Nonwhite female.....	81	17.9	25-34	189	30.2
Unknown.....	24	.....	35-44	102	15.6
			45+	132	8.4
			Unknown	88	.....

FIGURE 2



VENEREAL DISEASE CONTROL

HARVEY M. BURNETTE
Administrator

During 1961 this program has continued with emphasis on prevention and control of the venereal diseases. The ultimate goal of attaining practical eradication has been maintained through the following activities: casefinding and preventive procedures, increased epidemiologic intelligence, and education.

The program has 15 full-time interviewer-investigators who have received special training in working with infected persons. They have aided county health departments and private physicians in: interviewing all infectious syphilis patients for their contacts and suspects; performing rapid investigation on contacts and suspects; and, taking blood specimens for serologic testing among those groups in which a high incidence was known or suspected.

During 1961 the state reported 1118 cases of early infectious syphilis, or 75 per cent increase over 1960 when 639 cases were reported. Total syphilis cases reported during 1961 was 5324, or 29.4 per cent increase over 1960 when 4119 cases were reported. The marked increase in the incidence of early infectious syphilis cuts across all socioeconomic groups, but has shown a particular increase over the 15-34 age group.

Many persons have thought that the incidence of syphilis and gonorrhea had been declining for years. Certainly, this was true during World War II and until about 1952. Between 1953 and 1958, total syphilis cases as well as early infectious syphilis remained about constant. However, a sudden increase in early infectious syphilis was reported in 1959. This rise was continued through 1961 at the alarming rate reported above.

Many and various factors are thought to be responsible for this continuing increase in early infectious syphilis: lack of education, breakdown of morals, and general apathy of the public.

Venereal disease investigators interview all infectious cases whether reported by the private physician or county health department. Approximately 60 per cent of the total syphilis was reported by the private physician, as compared with 25 per cent of early infectious syphilis cases. Every private physician in the state is urged to report all infectious syphilis cases immediately. Contacts of private physicians' patients are referred to the private physician of their choice, or the county health department. Such interview and investigation is strictly confidential and the identity of the original infected patient is never disclosed. The exposed person (sex contact) is never told the name of the original patient. This confidential program is receiving very good acceptance by the private practitioner, the patient and the contact himself.

There is an increasing large number of homosexual cases and contacts among all groups. The same confidential rapport must be main-

tained by the investigator in his interviewing and contact investigation of such cases.

If control levels in the VD program are to be reached and maintained, there must be complete cooperation between the private physician and the county health department with reference to epidemiology, interviewing, investigation and educational measures.

Gonorrhea is one of the venereal diseases largely reported by county health departments. Private physicians report about 14.6 per cent of total cases. This probably is due to the short length of time needed to diagnose and treat these patients.

Chancroid, granuloma inguinale and lympho-granuloma venereum have continued to be of minor importance due to the small number reported. These diseases are usually found among the lower socioeconomic group where poor personal hygiene is practiced.

A program of following all reactive reports on specimens submitted to the Bureau of Laboratories by private physicians is continued. In addition, a program has been initiated to gain the full cooperation of privately owned and operated laboratories doing serologies.

The control of venereal disease is dependent upon continued and expanded efforts to encourage and assist schools by providing venereal disease instruction. To this end a Negro health educator has worked with county health departments, school officials, schools and other interested civic groups in the institution of a sound VD educational program in the schools. The health educator meets with school officials and discusses an approved format which has been endorsed by the State Board of Health and the State Department of Education. When approval is granted, the health educator is assisted by the county health officer and other health department personnel, in initiating the program with selected groups of teachers. These groups of teachers are given special instructions and teaching aids in communicable disease control with specific emphasis on venereal diseases. Teachers then correlate the information received with curriculum subject areas and present it to students.

VD education is promoted by sending appropriate pamphlets to private physicians and county health departments. This office assists with newspaper articles and exhibits whenever possible. Many lectures and pamphlets have also been given to the public.

This program is carried on by an administrator, PHS representative and health educator (all of whom travel throughout the state giving assistance), a chief clerk and two central registry clerks.

DIVISION OF RADIOLOGICAL AND OCCUPATIONAL HEALTH

Edwin G. Williams, M.D.
Director

OCCUPATIONAL HEALTH

The recent publication of the Florida Development Commission, *Florida's New Industrial Plants, First Half, 1961*, reports that in the first six months of 1961, 283 new plants and 46 major expansions of existing plants were announced in Florida. These new plants and expansions were expected to add about 10,000 persons to the industrial working force.

In Hillsborough County a study program is going on which is presently supported in large part by the U. S. Public Health Service and is operated as an integral part of the county health department. It has as its basic goal the development of an occupational health program seeking to bring together all of the community activities and facilities, both public and private, which have a bearing on the health status of the occupied segment of the population. While not neglecting the disciplines of medicine, industrial hygiene and nursing, emphasis is being placed on the sociological and psychological aspects of worker health. Partly because of tradition and largely because of availability, the industrial worker will comprise the bulk of population served during the early phases of the program, but in concept and as the activity develops, the services will be extended to all people who work.

Field Activities—General

Occupational health personnel made 216 visits to 66 establishments employing about 11,000 persons. It is interesting to compare these division figures (ROH) with those reported in the aforementioned Florida Development Commission publication (FDC) for the first half of 1961 and for 1960. According to this report there were 315 and 283 new plants reported in the state during the first half of 1960 and 1961 respectively, while the Division of Radiological and Occupational Health was only able to render service to a total of 68 and 66 establishments during these periods.

This comparison of the number of establishments given service with the number of new plants reported gives a rough indication of the magnitude of the problem of providing minimal service to the occupied people of the state. The problem is even greater than is indicated because many of the establishments given service by the division do not come under the definition of industrial plants. Even discounting this limitation and the probable overoptimism of the Florida Development Commission figures, the total number of places given service falls far short of the number of new industries going into business in the state.

Request work more than doubled from 1960 to 1961 (21 per cent to 49 per cent of total visits) while original work was substantially reduced (78 per cent to 51 per cent of visits). This development was due

in part to an increasing awareness of and interest in the services available from this division. This seems especially evident in establishments not previously in receipt of such services.

Field Activities—Phosphate Study

The similarity of 1961 Personnel Visit data to 1960 figures reflects the continuing program emphasis on the phosphate study. Although only 12 per cent of the total number of establishments visited were involved in the phosphate study, approximately 40 per cent of the visits made were to these establishments. Activities in the phosphate study consumed about 25 per cent of the total man-hours, or about one-half of those available for field and laboratory work. Active cooperation in this study was continued with the Bureau of Sanitary Engineering and the Division of Sanitation.

Field Activities—Other

Requests for service do not always stem from outside sources. Frequently, they originate close to home as witnessed by the following incidents or conditions investigated by division personnel within the State Board of Health building complex: an accidental carbon tetrachloride spill, inadequate lighting, ventilation of a "stuffy" office, a gas leak and a phenol exposure. In each case the investigations led to recommendations for action which eliminated the problem.

Investigations made at the request of the Florida Industrial Commission continued to receive high priority consideration. These investigations have taken such varied form as the evaluation of: solvent exposures in a custom built awning shop, solvent exposures in a dry cleaning plant, dust and explosion hazards in a fertilizer plant, chlorine hazards in a transfer plant, carbon dioxide exposure in a banana ripening warehouse. In most cases recommendations were made which when carried out would reduce or eliminate the hazard.

Investigations at the request of county health departments or other bureaus and divisions of the State Board of Health have ranged from atmospheric studies in boat building plants or bacteriological sampling in hospitals to surveys of peanut processing plants, automobile tire reclaiming shops, or the air conditioning ducts of a new jail to an investigation of a series of asthma attacks among guests of a motel on one of Florida's beaches. The variety of problems was seemingly endless.

Miscellaneous Activities

Informational memoranda on the potential hazards of ozone generators and coin-operated dry cleaning machines were prepared jointly with the Bureau of Sanitary Engineering and were given statewide distribution. Feature newspaper articles were published on the seasonal hazards of carbon monoxide from faulty heating appliances and on the variety of tasks the division undertakes.

Consultation was afforded the Division of Sanitation on several problems. One of the most persistent of these was the recurring question

of the degree of hazard to the homemaker in the use of plastic lined fry-pans (for greaseless frying). Apparently a series of misunderstandings of a safety memorandum issued by a federal agency heightened everyone's concern and was responsible for the frequent inquiries. This was an instance where a conservative "better be safe than sorry" attitude on the part of several uninformed officials served to place a patently innocuous product in jeopardy of being condemned as a serious hazard.

Cooperation and consultation with the Bureau of Sanitary Engineering, particularly the Air Pollution Control Program, continued to increase. Joint investigations were made in cases involving pine pollen fallout, photographic shop odors, Jacksonville-Duval County air pollution, an incinerator testing program, an occupational death in a sewage treatment plant lift station, and the accidental gassing of a construction gang working near a sulfuric acid plant. That Bureau also continued to furnish laboratory space and some field assistance to the division field teams in the phosphate study in Polk County.

Laboratory Activities

Chemical testing was on an increase for the year, there being 692 analytical tests performed together with 437 controls, standards and reagent preparations.

Fluoride determinations headed the list, paralleling the strong emphasis on study activities in the phosphate industries of southern and central Florida. Although all 230 fluoride analyses were made by the classic and reliable "Willard and Winter" distillation method, initial investigative work was performed on a faster and more modern ion exchange procedure.

Next were the 226 lead determinations. Biological materials continued to comprise the greater number of samples submitted for lead analysis, but an interesting phase of this testing was carried out jointly with the Division of Sanitation and involved a certain type of ceramic dinnerware manufactured in another state. The USPHS reported that two cases of lead intoxication had been attributed to ingestion of food stored in dishes from certain lots of this manufacturer's production. Some of the "tainted pottery" (newspaper quotes) was thought to have been distributed in Florida. The efforts of the Division of Sanitation were successful in turning up 67 samples of ceramic ware which were tested in the division's industrial hygiene laboratory. All of the samples of this manufacturer's ware showed excessive amounts of lead in the glaze. This production has been recalled by the manufacturer. An interesting facet of this investigation was revealed because samples of a similar ceramic dinnerware from another manufacturer's production were also submitted. Scientific curiosity being what it is, these samples were tested. Several of them gave positive indication of excessive lead in the glaze. The authorities of the state in which this ceramic ware was manufactured have been notified of the findings.

The division's two chemists cooperated with the Bureau of Sanitary Engineering in the testing of vegetation samples for sulphates and

chlorides, performing 120 of these tests. The division also gave assistance to that Bureau, the USPHS, and the Jacksonville City Health Department personnel who were conducting an air pollution survey of the Jacksonville area.

The laboratory participated in analyzing a series of aqueous and biological samples, submitted by the Analytical Reference Service, USPHS, to determine the accuracy of analytical procedures used for lead analysis.

Dust counts, free silica determinations, tests for chromates, styrene, aluminum and other materials completed the 692 laboratory analyses.

TABLE 19
OCCUPATIONAL HEALTH FIELD ACTIVITIES
JANUARY-DECEMBER 1961

Number of persons or establishments given service	66
Workers employed	10,957
Personnel Visits to Plants	
Self-initiated	37
Requests or complaints	42
Agency referrals	63
Revisits	74
Total	216
Services Rendered	
Routine inspection	25
Industrial hygiene survey	35
Technical study	59
Consultation	57
Follow-up	17
Discuss report	6
Air pollution (with Bureau of Sanitary Engineering)	21
Non-occupational investigation ..	3
Field Determination of:	
Atmospheric Contaminants	
Combustible gases	6
Carbon monoxide	5
Hydrogen sulfide	5
Carbon dioxide	4
Perchloroethylene	4
Oxygen	3
Total	27
Physical Conditions	
Noise measurement	101
Air velocity measurement	77
Miscellaneous	15
Total	193

SAMPLES COLLECTED FOR LABORATORY ANALYSIS

Fluoride in air	107	Styrene in air	7
Dust in air	72	Chloride & sulfate	
Bacteria in air	142	in vegetation	13
Bacteria on surfaces	122	Miscellaneous	3
		Total	466

TABLE 19 (Continued)

OCCUPATIONAL HEALTH LABORATORY ACTIVITIES
JANUARY-DECEMBER 1961

Materials	Type Sample	Source	Analyses
Lead	Human fluids	Doctors, hospitals & industry	143
	Ceramic ware	State & local agencies	59
	Miscellaneous	State & federal agencies	24
Fluoride	Air	Industry	222
	Miscellaneous	Biological material	8
Dust	Air	Industry	79
Sulphates	Vegetation	Bureau of Sanitary Engineering	60
	Urine	Federal agency	12
Chlorides	Vegetation	Bureau of Sanitary Engineering	60
Free Silica	Dust, slag	Industry	10
Styrene	Air	Industry	7
Chromates, Alu- minum, etc.	Air and Misc.	Industry	8
Total			692
Reagents, Blanks, Controls and Standards			437
Total			1129

TABLE 20

OCCUPATIONAL DISEASE REPORTS*
JANUARY-DECEMBER 1961

Dermatitis	321
Citrus fruit	47
Cement	44
Detergents	41
Seafoods	19
Plant	19
Larva migrans	17
Other	134
Systemic Poisoning	116
Parathion	97
Other	19
Conjunctivitis	91
Welders	84
Others	7
Miscellaneous Diseases	26
Total	554

*Received through the Florida Industrial Commission.

RADIOLOGICAL HEALTH

The division has the responsibility for overall direction and coordination of all activities related to radiological health carried out by the State Board of Health. In addition, it has a specific responsibility in the area of occupational exposure to ionizing radiation in cooperation with the Florida Industrial Commission, and has established a strong program in the area of radiation incident to the diagnostic use of X-rays.

Regulations

A final draft of the regulations *Control of Radiation Hazards* was drawn up by the division, was adopted by the State Board of Health on March 11, 1961 as Chapter XXXIV of the Florida State Sanitary Code and became effective April 21, 1961.

Survey of X-ray Facilities

The program of radiation exposure control through inspections of X-ray equipment and facilities was continued in 1961. Six-hundred and ninety-two X-ray machines in 463 dental installations were surveyed in Duval, Hillsborough, Lake, Leon, Manatee, Orange, Osceola and Pinellas Counties on a countywide basis at the request of the county dental societies and with the cooperation of the county health departments. A small number of dental installations in other counties and a limited number of medical X-ray installations in private offices, hospitals and health departments around the state were surveyed. Individual reports were issued to each owner and summary reports were issued to dental societies and health officers concerned.

An investigation was initiated in regard to Chapter XXXIV Section 334.04 (1) which makes it unlawful to operate fluoroscopic or X-ray devices for the purposes of fitting or selling footwear through commercial channels. All county health departments responded, reporting 42 such machines in the state, at least 10 of which were in use, 17 were in storage and the status of 15 were unknown.

All machines were removed from operation on the recommendation of the county health officer. All owners were advised that the regulations prohibited putting the machines back in service.

Other Radiation Users

The division continued to cooperate with the U. S. Atomic Energy Commission, Division of Compliance, by participating in inspections of users of radioactive materials. There were at the end of the year 234 licenses in the state.

The division cooperated with local health, police and fire officials by providing at their request lists of users of radioactive material in their jurisdictions and notifications of new users. Twenty-four such lists and notifications were issued through the various county health departments.

Surveillance

A task force composed of representatives of the various State Board of Health bureaus involved in environmental monitoring was organized to formulate recommendations concerning monitoring needs, program priorities and use of the laboratory services. This group met several times during the year and drew up the 1961 program. This group has recommended the preparation of a report presenting all environmental radioactivity data collected in Florida during 1961.

Throughout the year high-volume air sampling devices and precipitation collectors were operated by the division as a part of continued participation in the nationwide study of air-borne contamination and natural background. Until September 1, 1961, filters in the air sampler were changed daily (week-ends composited), monitored for radioactivity and forwarded to the USPHS Laboratory in Washington for more complete and subsequent study. Beginning with September 1, 1961, and on its own initiative, the division shifted to a seven day, 24 hour sampling schedule because of Russian testing of nuclear weapons. On September 5, the USPHS requested this schedule of all its stations and authorized telephonic reporting each day. Precipitation was collected and measured by approved meteorological procedures, using the same schedule as for air sampling. For most of the year rain water samples were evaporated to dryness and forwarded to Washington for detailed study. During the latter part of the year, the procedure was modified so that evaporated and liquid samples were submitted if the volume collected was large enough. This program involved the handling of 366 samples of air and rain water.

The division continued to cooperate with the USPHS and with the Hillsborough County Health Department in the national milk, and later, food surveillance network. These programs also were increased in tempo during the period of Russian testing.

The milk surveillance program is still hampered by the lack of laboratory equipment and technical personnel. The division is still collecting milk, however, and is developing techniques for a partial analysis with present equipment. During the year some milk and other samples were analyzed by the USPHS laboratory in Montgomery as a part of a special surveillance program related to activities at Cape Canaveral. All milk samples from the peninsular part of the state continue to show aberrant amounts and ratios of cesium 137.

During the latter part of the year funds were made available to the division to increase surveillance toward an operational capability. The decision was made to obtain a low beta counting system to be operated by the Bureau of Laboratories and to increase the number of air sampling stations and later (hopefully) to establish a gamma scanning capability.

X-Ray Exposure Study

In cooperation with the USPHS, professional groups using X-ray equipment as an aid to diagnosis, and the county health departments, the division undertook a research study to (1) more adequately determine radiation exposure incident to the diagnostic use of X-rays, (2) to develop an improved survey and consultation procedure, and (3) to discover or develop a method of effectively advising the X-ray user in matters of radiation protection.

Personnel Monitoring Service

The division continued to operate the personnel monitoring service for state and county health department personnel potentially exposed

to ionizing radiation. A total of 1248 badges or approximately 104 per month were handled. Four possible overexposures were investigated and a number of recommendations were made for improvements in operating procedure and in the handling of the badges.

TABLE 21
SUMMARY OF MAJOR RADIOLOGICAL HEALTH ACTIVITIES

Surveys of dental X-ray installations	
Offices	463
Machines	692
Surveys of medical X-ray installations	5
Visits to users of radioactive materials	16
Jacksonville Station, Radiation Surveillance Network	
Air samples collected and scanned	293
Rain water samples collected	73

Training and Related Activities

During the year 1961, training and related activities continued as prominent features of the division's program. The entire staff participated in planning and presenting the "Occupational Health Course for Sanitarians" which was given jointly with the USPHS in May. A course "Introduction to Radiological Health" was presented in Tampa and in Orlando in April. This course, presented with the assistance of the USPHS, was designed to acquaint local health and other professionally interested persons with radiation and its public health implications.

Staff members attended a variety of informational meetings such as the Civil Defense Survival Course and conferences with officials regarding occupational and radiological health programs which are underwritten by the USPHS.

DIVISION OF TUBERCULOSIS CONTROL

DWIGHT J. WHARTON, M. D.
Director

Tuberculosis control is very simple in theory. The objective is to prevent infection of the non-infected. Once a person is infected disease may become evident as early as a few months or as late as many years. To prevent new infection those having active infectious tuberculosis must be found, isolated, treated and rendered non-infectious. Over the years there has been an increasing cost in money and effort to find each new case, although the 1961 yield of cases found by mobile X-ray units has caused a slight reversal of this trend.

The purpose and activities of tuberculosis control have changed little in the past several years. There is continued operation of five mobile photofluorographic X-ray units which visited 30 counties and state in-

stitutions during 1961. Eighteen county health departments or tuberculosis associations operate such units. Thirty-four county health departments have facilities for 14 X 17 chest X-rays and the diagnostic unit from this division continued its operation so that each county health department of the state had X-ray services available. The division continued processing and interpretation of films for health departments requesting this service.

MORTALITY AND MORBIDITY

The U. S. Public Health Service has introduced a new index to make a more satisfactory comparison between the 50 states stating that neither the case rate nor death rate alone is entirely satisfactory for comparison due to differences in reporting. They combine the two into a "Composite Index." To arrive at this they point out that the case rate for the nation is roughly five times the death rate. So the death rate is multiplied by five and added to the case rate. This sum divided by two equals the composite index. In 1959 Alaska had the highest composite index with 111.7 and Florida was in thirty-first position with 26.8. The composite indices of other southeastern states were: Alabama 47.9, Mississippi 35.7, South Carolina 32.4 and Georgia 30.6. North Carolina, with an index of 23.8, was the only state of this area with an index more favorable than Florida. The composite index of Florida was 24.7 for 1960 and 24.2 for 1961, showing a slight progressive decline.

Morbidity and mortality of tuberculin reactors offers an interesting field for thought. There are no accurate data available in the United States for tuberculin reactor rates for various age groups but the USPHS estimates the rates will approximate the following: age 0-24 years, three per cent reactors; age 25-45 years, 20 per cent reactors; age 45-64 years, 49 per cent reactors and over 64 years 73 per cent reactors. Breaking down the 0-24 age group we estimate the reactor rate for 0-4 years of age to be one per cent, 5-14 years to be three per cent and 15-24 years to be five per cent. With these very approximate data the estimate for case and death rates for reactors only in Florida in 1961 is shown in Table No. 22.

TABLE 22
TUBERCULOSIS CASES AND DEATHS WITH RATES
PER 100,000 ESTIMATED TUBERCULIN REACTORS,
BY AGE, FLORIDA, 1961

AGE	REACTORS	NEW CASES	CASE RATE	DEATHS	DEATH RATE
0-4	5,400	63	1166.7	6	111.1
5-14	28,000	45	160.7	0	0.0
15-24	32,000	114	356.3	1	3.1
25-44	256,000	467	182.4	42	16.4
45-64	500,000	454	90.8	99	19.8
65+	404,000	194	48.0	74	18.3
Unknown age		22			

Table 22 presents data already well known to those who work in tuberculosis control. There is a popular belief that tuberculosis is a disease of older people but this shows it is a disease, a very serious and frequent disease, of young reactors. The risk to the young is well known and prophylactic chemotherapy has been recommended in this state for several years for these young people. The risk becomes extremely low with an adequate prophylactic therapy regimen. The table also shows that there is still a considerable number of non-reactors in the older age groups and that a negative tuberculin will save much work in follow-up of suspects and contacts.

The USPHS instructs all states to report only active cases of tuberculosis and Table 23 shows new active cases since 1952.

Following the Arden House Tuberculosis Conference in late 1959 a case rate of 10 for the nation by 1970 was established as a goal of achievement. This requires a 10 per cent decline in new cases each year. There has been no decline in Florida in the past two years although an average nine per cent decline has occurred yearly for the past five years. In 1961 there were several factors which has kept the case rate from declining: extra efforts at case detection by many health departments, a considerable number of new cases found in Cuban refugees, more tuberculin testing and increased case reporting by state mental hospitals.

Table No. 24 shows data on new cases as to stage of disease, race, sex, age and source of report for all active cases for 1961 compared to 1960.

CASE DETECTION

There were two minor changes in operation of the 70 mm mobile X-ray units this past year. For several years there have been efforts to use the X-ray units in areas of high tuberculosis incidence. This is receiving more attention than in previous years and countywide mass surveys are discouraged. How to determine a high incidence area is a problem each county must evaluate. A second change in operation was to offer a mobile unit to a county for one or a few days operation to obtain chest X-rays on special groups. These are certain groups of people who by the nature of their occupation come in contact with large numbers of people and thus have increased opportunity to become infected with tuberculosis. Some are actual contacts of active cases, some are known tuberculin reactors and are in a high risk segment of the population. Thus a mobile unit can go into a county and X-ray contacts, tuberculin reactors, foodhandlers, school employees, beauticians and barbers without interfering with regular survey programs and at no extra expense to the state.

Combined 70 mm X-ray units made chest films on 657,251 individuals compared to 610,241 in 1960. Chest X-rays on migrant field workers were continued. The yield of new cases of tuberculosis increased this year. There were 111 new cases found with 251,081 films by the five state units compared to 47 new cases in 252,350 films in 1960. There were

196 new cases found with 404,901 films by county and tuberculosis association units.

Contacts of other active cases offer the best yield in case detection efforts. Few cases are uncovered as a direct result of tuberculin testing but contacts of reactors offers a good yield. Dade County reported approximately one-third more new cases in 1961 than in 1960 and has indicated the Cuban refugee problem accounts for a great part of the increase. State hospitals did an excellent job of reporting this year causing Gadsden County to show a 300 per cent increase in new cases.

Tables 25 and 26 give data on 70 mm X-ray screenings and follow-up for state and county units.

OTHER X-RAY SERVICE

The 14 X 17 portable X-ray unit continues to make regularly scheduled visits to all counties which do not have this service and also visits several counties having facilities for large chest X-rays but where this unit can provide additional helpful service. As a result of this no county in the state is without adequate chest X-ray facilities.

ACTIVITIES IN COUNTY HEALTH DEPARTMENTS

The county health departments expend a tremendous amount of time and effort in tuberculosis control procedures. The work load is made greater than necessary by the lack of cooperation of some patients, and in a few instances by failure to receive periodic progress reports from private physicians. Cases who come here from another state and leave without reporting their departure cause much unrewarding work in attempts at follow-up. For lack of definite information many of these remain in the case registers indefinitely. Tuberculin testing continued on a high level and follow-up of X-ray surveys was excellent.

Jefferson County Project

Throughout the summer a project was carried out under sponsorship of the Jefferson County Health Department, Florida Tuberculosis and Health Association and State Board of Health. There were two primary purposes: to determine why individuals do or do not participate in chest X-ray surveys and to determine the relative effectiveness of several methods of reaching the population, particularly through community organizations. Five small communities were selected. Two communities acted as controls and three received special attention. All five communities had the same general publicity program by way of radio, television and newspaper. The county and these communities had participated in previous X-ray surveys in 1956 and 1958 and the participation of each community in the previous years was known. In the three special communities one had preregistration of all adults, a second one received a detailed health interview of one member of each family and the third had both preregistration and family interview.

The two control communities were so near the others that they found out something was going on and organized their own special campaigns, which defeated the purpose of serving as controls. However,

the study did show that the special effort of the study resulted in greater participation than was to be expected without it.

The part of the county not involved in the study showed a decline of 14 per cent in its participation, the study area increased by 200 per cent and the control area by almost 100 per cent. In one study community 66.7 per cent of the adults over 18 years of age had chest X-rays and two cases of tuberculosis were found in this area. This study will be reported in detail in 1962 at the annual meeting of the National Tuberculosis Association.

ACTIVE CASE STUDY

This study was started early in 1961 under sponsorship of the Statewide Coordinating Council on Tuberculosis, with personnel from the University of Florida, county health departments, Florida Tuberculosis and Health Association and State Board of Health. The purpose is to determine the status of all patients not hospitalized who bore a diagnosis of active disease on May 1, 1961. This study will be completed in 1962.

TINE TUBERCULIN TESTING

A new tuberculin testing method, called the "Tine Tuberculin Test," was reported favorably at the 1961 meeting of the National Tuberculosis Association. Arrangements were made to compare this test with the Mantoux method with both the standard and Battey type tuberculin. This testing is still in progress. Results to date indicate the test is somewhat less accurate than the Mantoux test and is far more accurate than the Patch test.

CENTRAL CASE REGISTER

Work was started to change the Case Register to conform to the 1961 "Diagnostic Standard and Classification of Tuberculosis," especially in reference to the status of "quiescent" disease. This old term has been revived, given new meaning and reinstated to include those patients who in clinical practice should not be considered to have active disease. The new designation is extremely welcome to public health workers but many months will be required to review the case registers to show this new status accurately. The case register shows only 513 active cases at home compared to 1224 the year before. There are 582 who have met the criterion for quiescent disease and when the review of all case records is completed the number classed as quiescent will increase and the number classed as active will show a further decline.

There are 625 cases of tuberculosis in the central register who have had one or more isolations of unclassified mycobacteria. These all bear a diagnosis of tuberculosis but also make up part of the case records for study in a research project on unclassified mycobacteria, which is being reported separately.

During the year 225 cases of tuberculosis were transferred from other states to this state and their records are entered in the case register for routine follow-up.

TABLE 23
NEW ACTIVE TUBERCULOSIS CASES REPORTED—CASE
RATES, DEATHS AND DEATH RATES BY COLOR,
SELECTED YEARS PER 100,000 POPULATION 1952-1961

YEAR	Cases Reported	Cases Rate	TOTAL DEATHS		WHITE		NONWHITE	
			Deaths	Rate	Deaths	Rate	Deaths	Rate
1961.....	1,359	26.4	*221	4.5	146	3.4	75	8.1
1960.....	1,295	26.2	205	4.2	128	3.2	78	8.3
1959.....	1,271	26.5	233	4.9	161	4.3	65	7.4
1958.....	1,553	34.4	287	6.4	193	5.4	94	11.1
1957.....	1,716	40.8	257	6.0	165	4.8	92	11.5
1956.....	1,976	50.9	244	6.3	156	4.9	88	12.0
1955.....	1,786	51.7	281	7.7	175	6.0	106	14.6
1954.....	1,912	54.9	283	8.1	159	5.7	124	18.1
1953.....	1,824	58.5	303	9.7	171	6.9	132	20.7
1952.....	2,022	68.1	501	16.7	250	10.5	251	40.0

*Preliminary Data

TABLE 24
NUMBER AND PERCENTAGE OF REPORTED NEW ACTIVE
CASES OF TUBERCULOSIS BY STAGE OF DISEASE, RACE
AND SEX, AGE, AND SOURCE OF REPORT, FLORIDA
1960-1961

State of Disease, Race and Sex, Age, and Source of Report	1961		1960	
	Cases	Percent	Cases	Percent
TOTAL ACTIVE CASES.....	1,359	100.	1,295	100.
STAGE OF DISEASE				
Primary.....	87	6.4	80	6.2
Minimal.....	166	12.2	179	13.8
Moderately advanced.....	537	39.5	493	38.1
Far advanced.....	419	30.9	424	32.7
Non-pulmonary.....	72	5.3	60	4.6
Unknown.....	78	5.7	59	4.6
RACE AND SEX				
White male.....	575	42.3	568	43.9
White female.....	218	16.0	251	19.4
Colored male.....	334	24.6	295	22.8
Colored female.....	230	17.0	177	13.6
Unknown.....	2	0.1	4	0.3
AGE				
Under 5.....	63	4.6	52	4.0
5-14.....	45	3.3	43	3.3
15-24.....	114	8.4	108	8.3
25-44.....	467	34.4	438	33.8
45-64.....	454	33.4	423	32.7
65 Plus.....	194	14.3	217	16.8
Unknown.....	22	1.6	14	1.1
SOURCE OF REPORT				
Health Departments.....	610	45.0	606	46.9
Sanatoria.....	112	8.2	230	17.8
Private physicians.....	392	28.8	319	24.6
General hospitals.....	110	8.1	20	1.5
Death certificates.....	27	2.0	26	2.0
Veteran's hospitals.....	40	2.9	58	4.5
State prisons.....	7	.5	11	.8
State mental hospitals.....	43	3.2	18	1.4
Other.....	18	1.3	7	.5

Supplemental Notifications—1961

Diagnosed quiescent cases.....	none
Diagnosed inactive cases.....	140
Total cases reported.....	1,499

TABLE 25
RESULTS OF 70mm X-RAY SCREENINGS AND FOLLOW-UP
FLORIDA, 1961

SCREENING UNITS	70mm X-RAYS			FINDINGS						NEW CASES FOUND						14-in. x 17-in. X-RAY FOLLOW-UP FILMS			ALL FILMS		
	Total Films	Percent of Pop. 18 Yrs. and over	Definite or Suspected Tuberculosis	Percent Follow-up	New Cases	Old Cases	Diagnosis Reserved and Suspected Tuberculosis	By Stage				By Activity		Tumor	Cardiovascular	Other Pathology					
								Minimal	Moderately Advanced	Far Advanced	Unknown	Active and Prob. Active	Inactive and Prob. Inactive								
TOTAL.....	656,801	19.3	4,325	91.7	303	602	678	66	106	105	26	283	20	833	2,108	5,754					
Alachua Co. Survey.....	472	0.9	2	100.0	0	0	0	0	0	0	0	0	0	0	2	4					
Alachua Co. Health Dept.....	6,681	12.8	28	100.0	7	4	10	2	0	5	1	7	0	6	15	88					
Broward Co. Survey.....	6,289	2.5	55	83.6	9	5	12	0	0	3	4	9	0	13	33	49					
Broward Co. Health Dept.....	45,498	18.3	276	75.7	34	22	119	2	14	15	3	27	7	56	133	341					
Citrus Co. Survey.....	1,502	20.2	13	84.6	1	1	3	0	0	1	0	1	0	1	9	25					
Clay Co. Survey.....	225	1.7	0	100.0	0	0	0	0	0	0	0	0	0	0	1	7					
Collier Co. Survey.....	4,671	39.1	29	96.6	2	4	4	0	0	1	0	2	0	8	12	35					
Dade Co. Survey.....	34,682	52.2	178	85.9	7	19	21	0	4	3	0	7	0	57	110	826					
Dade Co. (H. D., T. B. Ass'n. & Others)	109,101	16.4	1,246	90.7	32	23	160	2	12	18	0	32	0	73	322	1,261					
Dixie Co. Survey.....	1,231	43.7	46	100.0	0	3	0	0	0	0	0	0	0	2	5	13					
Duval Co. Survey.....	16,208	5.7	21	98.5	4	9	13	1	3	0	0	3	1	17	54	136					
Duval Co. Health Dept.....	3,894	1.4	21	Follow-up not available	19	24	19	0	2	16	1	19	0	4	83	237					
Jacksonville City Bd. of Health.....	24,209	18.2	252	100.0	16	7	17	10	5	1	0	16	0	6	37	71					
Escambia Co. Survey.....	18,629	17.4	105	100.0	19	3	1	1	3	6	0	10	0	12	23	48					
Escambia Co. Health Dept.....	8,864	8.3	39	97.4	10	3	3	0	0	1	0	2	0	1	3	26					
Gadsden Co. Survey.....	1,610	6.4	6	100.0	2	0	2	0	0	0	0	0	0	0	9	13					
Gadsden Co. Health Dept.....	749	40.6	6	100.0	0	2	0	0	0	0	0	0	0	7	15	22					
Hendry Co. Survey.....	2,008	36.5	5	100.0	0	0	0	0	0	0	0	0	0	0	9	13					
Hernando Co. Survey.....	1,726	21.7	10	80.0	1	1	4	0	0	1	0	1	0	7	16	22					
Hillsborough Co. Health Dept.....	48,504	18.5	319	100.0	27	128	17	7	12	7	1	24	3	57	149	440					
Hillsborough Co. T. B. Ass'n.....	82,536	12.4	181	100.0	17	36	12	4	7	6	0	14	3	53	112	238					
Jefferson Co. Survey.....	1,776	33.1	3	100.0	2	2	3	0	0	0	0	2	0	2	8	14					
Lafayette Co. Survey.....	870	19.3	3	100.0	0	0	0	0	0	0	0	0	0	3	1	9					
Lake Co. Survey.....	10,975	28.3	67	98.5	5	6	14	0	2	3	0	5	0	15	35	95					

TABLE 25 (Continued)
RESULTS OF 70mm X-RAY SCREENINGS AND FOLLOW-UP
FLORIDA, 1961

SCREENING UNITS	70mm X-RAYS		14-in. x 17-in. X-RAY FOLLOW-UP FILMS						ALL FILMS							
	Total Films	Percent of Pop. 18 Yrs. and over	Definite or Suspected Tuberculosis	FINDINGS			NEW CASES FOUND									
				Percent Follow-up	New Cases	Old Cases	Diagnosis Reserved and Suspected Tuberculosis	By Stage								
								By Activity								
							Minimal	Moderately Advanced	Far Advanced	Unknown	Active and Prob. Active	Inactive and Prob. Inactive	Tumor	Cardiovascular	Other Pathology	
Lake Co. Health Dept.	354	0.9	1	0	1	0	0	0	0	0	0	0	0	2	2	4
Lee Co. Survey	15,256	36.0	83	2	10	21	0	0	0	0	0	0	0	29	78	99
Leon Co. Health Dept.	14,582	30.6	57	7	14	10	1	1	0	1	5	2	0	12	47	72
Levy Co. Survey	2,089	30.2	10	0	5	2	0	0	0	0	0	0	0	4	12	13
Manatee Co. Health Dept.	6,408	12.0	42	3	15	0	0	0	0	0	0	0	0	9	30	48
Marion Co. Survey	11,560	34.9	68	2	13	25	1	0	0	0	0	0	0	12	40	105
Monroe Co. Survey	4,683	14.6	32	2	4	8	1	1	0	0	0	0	0	0	10	29
Orange Co. Survey	49,963	28.3	189	8	29	39	3	3	0	2	6	2	0	56	151	396
Orange Co. Health Dept.	18,112	10.2	99	11	23	15	3	4	3	1	10	1	0	20	36	127
Palm Beach Co. Survey	15,085	9.3	111	6	12	17	0	0	0	0	6	0	0	29	64	138
Palm Beach Co. Health Dept.	13,989	8.7	67	9	12	4	0	1	5	3	9	0	0	10	30	116
Pasco Co. Survey	4,125	15.7	29	3	8	0	0	1	1	0	0	0	0	10	15	27
Pinellas Co. Health Dept.	28,192	9.6	160	9	43	27	2	2	1	0	0	0	0	50	54	203
Polk Co. Survey	17,728	18.8	76	6	9	21	2	1	1	0	0	0	0	34	83	178
Polk Co. Health Dept.	39,060	30.4	160	8	18	34	3	4	1	0	5	3	0	71	129	286
St. Lucie Co. Survey	10,526	37.6	69	3	10	14	1	1	1	0	3	0	0	15	35	90
St. Lucie Co. Health Dept.	4,178	7.0	21	1	7	2	0	0	0	0	0	0	0	4	11	22
Seminole Co. Survey	1,178	3.2	3	0	0	0	0	0	0	0	0	0	0	0	0	8
Sumter Co. Survey	1,984	27.8	17	0	5	5	1	1	0	0	0	0	0	0	5	12
Suwannee Co. Survey	2,845	31.4	14	2	4	2	0	2	0	0	2	0	0	2	11	12
Volusia Co. Survey	2,068	2.2	1	0	0	0	0	0	0	0	0	0	0	5	7	25
Walton Co. Survey	322	3.6	1	0	0	0	0	0	0	0	0	0	0	0	2	1
State Mental Hospitals	7,829	97.8	94	25	46	2	16	6	2	0	25	0	0	0	25	137
Florida State Prison	2,380	76.7	21	0	9	0	0	0	0	0	0	0	0	1	8	40

Note: Approximately one-half (50%) of these counties have had less than 6 months follow-up.

TABLE 26
ANALYSIS OF STATE X-RAY SURVEY UNITS
RESULTS, 1961

	RACE AND SEX					AGE							
	Total	White		Nonwhite		Un- known	18- 24	25- 34	35- 44	45- 54	55- 64	65 and over	Un- known
		Male	Female	Male	Female								
70mm Films	240,873	86,235	99,019	26,208	26,248	3,163	31,872	47,455	53,542	46,718	33,342	25,990	1,954
Total Films*	1,232	588	300	220	102	22	48	102	177	253	289	345	18
Definite or Suspected Tuberculosis	82	33	14	22	12	1	5	16	17	24	18	2	0
14"x17" Films	175	77	45	34	13	6	3	5	24	44	49	48	2
New Cases	233	113	44	48	24	4	9	23	40	47	60	52	2
Old Cases													
Diagnosis Reserved and Suspicious Tbc...													
New Cases by Stage													
Minimal	24	10	6	4	4	0	2	7	2	6	7	0	0
Moderately Advanced	29	16	3	4	6	0	2	5	6	9	6	1	0
Far Advanced	20	5	3	11	1	0	1	3	8	4	3	1	0
Unknown	9	2	2	3	1	1	0	1	1	5	2	0	0
New Cases by Activity													
Active & Prob. Active	79	32	12	22	12	1	5	16	17	22	17	2	0
Inactive & Prob. Inactive	3	1	2	0	0	0	0	0	0	2	1	0	0
New Case Rate per 100,000													
Satisfactory 70mm Films	34.0	38.3	14.1	83.9	45.7	31.6	15.7	33.7	31.8	51.4	54.0	7.7	—

*Excludes unsatisfactory films and Institution Surveys. Distribution by age, race, and sex based on a 10% sample of film.

TABLE 27
ANALYSIS OF CASES IN THE CENTRAL TUBERCULOSIS
CASE REGISTER—1961

COUNTY	Total Cases	Pulmonary Tuberculosis				Non-Pulmonary	Active Cases			
		Active	Quiescent	Inactive	Primary		In Hospital	At Home by Sputum Status		
								Positive	Negative	None 1961
STATE.....	9,627	1,785	582	6,971	211	78	1,272	164	222	127
Alachua.....	152	17	14	113	7	1	13	1	1	2
Baker.....	13	3	1	9			3			
Bay.....	85	12	5	68			11		1	
Bradford.....	39	3	4	32			3			
Brevard.....	137	15	12	108	2		12			3
Broward.....	499	86	28	366	17	2	64	7	8	7
Calhoun.....	25	12	1	12			6		5	1
Charlotte.....	26	1	2	23			1			
Citrus.....	9	2	1	6			1	1		
Clay.....	26	5	3	18			3		1	1
Collier.....	53	16		28	8	1	7		3	6
Columbia.....	63	11	1	50		1	8		3	
Dade.....	1,764	465	59	1,199	24	17	297	43	72	53
DeSoto.....	15	1	5	9			1			
Dixie.....	19	4	2	13			4			
Duval.....	1,068	191	57	783	29	8	147	21	19	4
Escambia.....	319	56	6	252	5		45	5	5	1
Flagler.....	10	2		8			2			
Franklin.....	12	1		11			1			
Gadsden.....	69	13	3	52	1		9		2	2
Gilchrist.....	5	1	1	3			1			
Glades.....	3			3						
Gulf.....	19	3		16			3			
Hamilton.....	32	9	1	22			6		3	
Hardee.....	20	3	2	14	1		2			1
Hendry.....	19	3	2	14			3			
Hernando.....	22	6	1	13	1	1	5		1	
Highlands.....	56	11	3	39	3		8		2	1
Hillsborough.....	896	163	56	657	15	5	118	21	17	7
Holmes.....	12	4	1	7			2		2	
Indian River.....	42	6	2	34			5			1
Jackson.....	97	13	9	72	2	1	10	1	2	
Jefferson.....	17	5		12			4		1	
Lafayette.....	5		1	4						1
Lake.....	186	20	8	103	2	3	16	2	2	
Lee.....	91	11	14	60	4	2	7		4	
Leon.....	174	20	5	137	8	4	16	3	1	
Levy.....	21	3	3	14		1	1	1	1	
Liberty.....	8	1	1	6						
Madison.....	36	5	4	23	3	1	4	1		
Manatee.....	111	20	10	76	1	4	12	5	3	
Marion.....	98	13	7	70	2	1	8	2	2	1
Martin.....	49	8	4	33	1	3	8			
Monroe.....	57	10	2	44	1		9		1	
Nassau.....	38	5	2	28		3	4	1		
Okaloosa.....	76	14	7	55			12	1		1
Okeechobee.....	17	3	1	10	3		3			
Orange.....	452	70	16	350	14	2	54	6	9	1
Osceola.....	46	8	5	32	1		6	2		
Palm Beach.....	516	82	56	351	20	7	62	6	8	6
Pasco.....	39	11	5	21	1	1	8	1		2
Pinellas.....	590	94	55	435	5	1	59	14	11	10
Polk.....	468	85	25	343	12	3	60	6	9	10
Putnam.....	73	7	8	58			6	1		
St. Johns.....	80	13	4	59	2	2	12		1	
St. Lucie.....	110	13	13	79	5		10	1	2	
Santa Rosa.....	42	6	2	34			5		1	
Sarasota.....	106	14	5	85	2		7	2	2	3
Seminole.....	107	18	7	80	2		13	2	2	1
Sumter.....	20	5	2	13			3		2	
Suwannee.....	39	6	4	29			4		2	
Taylor.....	23	3	3	15	2		2		1	
Union.....	12	2	2	7		1	1		1	
Volusia.....	224	40	12	166	4	2	27	3	9	1
Wakulla.....	11	4	2	5			4			
Walton.....	30	7	1	22			3	4		
Washington.....	22	3	3	16			3			
State Prisons.....	62	18	1	42	1		18			

TABLE 28
TUBERCULOSIS CASE REGISTER STATISTICS 1957 - 1961

Tuberculosis Cases by Activity, Location and Sputum Status	Number of Cases					Percent Distribution				
	1961	1960	1959	1958	1957	1961	1960	1959	1958	1957
TOTAL CASES IN REGISTER	9,627	10,135	10,918	12,404	12,758	100.	100.	100.	100.	100.
Active pulmonary.....	1,785	2,623	2,942	3,250	3,832	18.6	25.9	27.0	26.2	30.0
Quiescent.....	582					6.0				
*Questionably active.....		207	299	419	627		2.0	2.7	3.4	4.9
Inactive pulmonary.....	6,971	6,851	7,225	8,307	7,944	72.4	67.6	66.2	67.0	62.3
Primary.....	211	264	261	250	181	2.2	2.6	2.4	2.0	1.4
Non-pulmonary.....	78	190	191	178	174	.8	1.9	1.7	1.4	1.4
ACTIVE PULMONARY.....	1,785	2,623	2,942	3,250	3,832	100.	100.	100.	100.	100.
Hospitalized.....	1,272	1,399	1,517	1,750	1,980	71.3	53.8	51.6	53.9	50.4
At home.....	513	1,224	1,425	1,500	1,902	28.7	46.7	48.4	46.1	49.6
ACTIVE CASES AT HOME.....	513	1,224	1,425	1,500	1,902	100.	100.	100.	100.	100.
Positive sputum.....	164	198	238	259	390	32.0	16.2	16.7	17.3	20.5
Negative sputum.....	222	605	651	726	683	43.3	49.4	45.7	48.4	36.0
Undetermined sputum.....	127	421	536	515	829	24.7	34.4	37.6	34.3	43.5

*USPHS instructions—not to report questionably active or undetermined activity.

EPIDEMIOLOGY OF THE UNCLASSIFIED MYCOBACTERIA

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During 1961 the field director for this special study for the past two years returned to the continuation of his postgraduate training. The initial National Institutes of Health grant which had been supporting the study for the last three years terminated and a new application was submitted. It approved continuation of these studies for another three-year period beginning September 1, 1961. June 1961 ended the fifth year of the total study and a report of these years was prepared and presented in November to the American Public Health Association in Detroit.

The following summary is taken from this report:

"The large number of Unclassified Mycobacteria recovered in Florida during the past five years has afforded the opportunity for detailed studies into their bacteriological, clinical and epidemiological characteristics. These organisms were found in association with a wide spectrum of clinical conditions ranging from no illness to chronic, progressive and even fatal disease. The Group III organisms appear to have the widest distribution in Florida, and the broadest spectrum of pathogenicity. Accumulating evidence indicates that if person-to-person transmission occurs, it is of limited significance in the total epidemiology of these organisms. The probability of infection appears closely related to the age, race, occupation, geographic location of the individual and the time of year. Important determinants of disease following infection are age, sex and lowered pulmonary

resistance. Thus, while contact with Unclassified Mycobacteria is an event of early life occurring predominantly during the spring and affecting mainly the Negro who lives within the rural peninsular area of Florida, overt disease, if it occurs, is late in its onset and most prone to affect the elderly male with altered pulmonary function.

The reservoir of these bacteria is unidentified. However, they have been found, with variation by groups, in a wide variety of extra-human sites: soil, dust, water, ice, vegetables and occasionally animals. In contrast, *M. tuberculosis* has not been demonstrated outside the human specimen.

In these studies the laboratory and epidemiological observations have progressed together over the five years, leading to more exact classifications and definitions of relationships in both areas. Such cooperative efforts are essential for attainment of the ultimate goals we set out to achieve; namely, to determine the reservoir of these infections and their hosts, their mode(s) of transmission and their relation to illness in man."

School tuberculin surveys were carried out in four counties during 1961. Seventy-five per cent of the school children in the first, second and one other upper grade were skin tested and read. Follow-up studies on reactors and their household associations included X-ray and sputum specimens. The number of contacts of these reactor school children totaled 378.

TABLE 29
UNCLASSIFIED MYCOBACTERIAL INFECTION CASES
BY RACE AND SEX
FLORIDA, JANUARY 1955-DECEMBER 1961

RACE	SEX	TOTAL CASES		GROUP III CASES		OTHER CASES	
		Number	Per cent	Number	Per cent	Number	Per cent
White.....	Male.....	809	50.1	539	52.5	270	46.0
	Female.....	305	18.9	199	19.4	106	18.1
TOTAL WHITE.....		1,114	69.0	738	71.9	376	64.1
Colored.....	Male.....	307	19.0	190	18.5	117	19.9
	Female.....	168	10.4	81	7.9	87	14.8
TOTAL COLORED...		475	29.4	271	26.4	204	34.7
Unknown Race and Sex....		25	1.6	18	1.7	7	1.2
TOTALS.....		1,614	100.0	1,027	100.0	587	100.0

Case—The definition of a case used for inclusion in this table is any individual from whom Unclassified Mycobacteria have been isolated on one or more occasions with or without evidence of associated manifest disease.

In 1961 a total of 526 new cases of Unclassified Mycobacteria were recorded in comparison to 576 new cases reported during 1960. Table 30 shows the distribution by race and sex of those cases identified since January 1955.

DIVISION OF VETERINARY PUBLIC HEALTH

J. E. SCATTERDAY, D.V.M., M.P.H.
Director

Veterinary medicine provides specific benefits to human health in three major ways: removal of sources of exposure or infection to man through eradication or control of those animal diseases transmissible to man; development of preventives or treatments for animals that can be adapted for use in human cases; and food hygiene programs that protect the consumer against foodborne diseases of food products of animal origin.

There are more than a hundred zoonoses in animals throughout the world that may be transmitted to man, and in the present day mode of travel, all of these diseases, even the exotic or foreign ones must be considered. As any one of these is eliminated, a source of disease for man is also eliminated.

Veterinary research has provided new knowledge of tuberculosis, brucellosis, rabies, encephalomyelitis, hookworm disease, leptospirosis and other diseases transmissible to man from animals.

A summary of the activities of this division in 1961 is as follows:

Brucellosis—ten human cases were reported during the past year. Each of these cases was investigated by the staff of this division. Assistance was also given to the Florida Livestock Board, State Department of Agriculture in a program of testing and vaccinating cattle for brucellosis.

Bovine Tuberculosis—the upward trend of this disease continued in 1961 with 237 tubercular cattle reported. The test and slaughter program of the Department of Agriculture and practicing veterinarians was continued. A total of 237,312 cattle were tested.

Eastern Equine Encephalomyelitis—There were 38 cases of eastern equine encephalomyelitis in horses in 1961.

Leptospirosis—This common disease of cattle, dogs and swine has shown a marked decrease in 1961. There were 112 cattle, 339 dogs and nine swine reported. No human cases were reported.

Mycotic and Parasitic infections are possibly the most prevalent of the zoonoses. Ringworm, a mycotic infection of animals and man, was reported by veterinarians in 153 dogs, 78 cats, 45 swine and one monkey. These infections are not reportable in the human. Hookworm (*Ancylostoma braziliense* and *Ancylostoma caninum*), not a reportable disease in animals, is, however, widespread in dogs and cats in Florida. Creeping

eruption, caused by contact with the larvae of these dog and cat parasites, remains a most common dermatitis of children, utility workers and gardeners.

Rabies—there were 68 positive laboratory confirmed cases of rabies in Florida in 1961. The 68 cases involved eight species and were diagnosed and confirmed in 34 counties, these being primarily in the peninsular portion of the state. No human cases were reported although 429 complete doses of vaccine were dispensed by the Florida State Board of Health. Three hundred and ninety-nine were brain tissue vaccine, 30 were duck-embryo vaccine and 86 vials of hyper-immune serum.

TABLE 30
NUMBER OF CASES OF ANIMAL RABIES BY SPECIES,
COUNTY, MONTH—FLORIDA - 1961

County & Species	Dog	Cat	Fox	Raccoon	Skunk	Horse	Bat	Flying Squirrel	Total
TOTALS...	5	7	1	44	2	1	7	1	68
Alachua				5					5
Baker				1					1
Bradford				5					5
Brevard				2					2
Charlotte				2					2
Citrus				1			1		2
Columbia				2					2
DeSoto				1					1
Duval				1			1		2
Glades						1			1
Hardee				1					1
Hendry					1				1
Hernando		1							1
Highlands		1	1	1					3
Hillsborough	1			1			2		4
Jackson		1							1
Jefferson				3					3
Madison				1					1
Marion				6					6
Monroe				1					1
Okaloosa							1		1
Okeechobee				2					2
Orange		1		1					2
Osceola	1								1
Pasco				1					1
Pinellas				1			2	1	4
Polk	2	1		1					4
St. Johns				2					2
Sarasota		1		1					2
Seminole	1			1	1				3
Sumter		1							1
MONTH									
January	1			2		1	1		5
February	2			3					5
March				7	1				8
April		1		4					5
May	1			2					3
June				2			5	1	3
July				1			5		6
August		1	1	5					7
September		2		8					10
October	1	1		6			1		9
November		1		2	1				4
December		1		2					3
TOTALS...	5	7	1	44	2	1	7	1	68

The 68 animals with positive laboratory confirmed rabies were responsible for 26 human and 37 animal known exposures as shown below:

BITING ANIMALS	5 dogs	7 cats	1 fox	44 raccoons	2 skunks	1 horse	7 bats	1 flying squirrel
EXPOSURES	1 dog 4 humans	7 humans	3 humans	9 humans 2 cows 28 dogs 1 cat	1 dog	1 horse several cows	1 human 3 cats	2 humans

BIOLOGIST'S REPORT

W. L. JENNINGS, Ph.D.

Rabies in wildlife continues to require most of the biologist's attention, with wildlife species involved in 80 per cent of the 66 cases reported by the laboratory. Raccoons were responsible for 65 per cent of the cases. Raccoon control was considered in several counties, but was carried out in only one instance. In it, 200 were live-trapped from a 300 acre island in Sarasota, where approximately 1000 fine homes are located. Rabies spread was apparently stopped, but this trapping operation proved to be too expensive for general application in less thickly populated areas. Raccoon rabies continues to spread westward, and remains the most pressing unsolved rabies control problem which currently appears to be capable of solution. A cooperative research program to investigate the feasibility of raccoon control techniques, especially a test using salaried trappers, was proposed to the newly formed committee on wildlife control problems, which represents the Department of Agriculture, Game and Fresh Water Fish Commission and State Board of Health. Until more effective population control techniques are developed, the recommendations are intensified pet immunization and to caution people to be more careful of wild animals when raccoon rabies is reported. Although the abundance of raccoons makes a general population reduction program prohibitively expensive, raccoons have not proved to be the effective vectors for humans and pets that dogs and foxes are when they become rabid. Most of the cases would not be reported if it were not for the continued improvement in statewide surveillance and reporting, which is partly a result of the bat rabies research carried on during the last eight years. More research effort should be devoted to raccoon populations and their control.

Rabies in bats continues to be a harassing problem, with seven cases reported, two of them a result of survey efforts. Only two people were bitten by known rabid bats, but the possibility of bat transmission arises in every sporadic rabies case, as it does in most animal bites where human treatment is considered. A series of experiments with the virus strain isolated from bats is underway.

Domestic animals continue to present a minimal number of rabies cases, most of them unrelated to other known cases, and therefore con-

sidered to be sporadic contacts with our hidden reservoir. Dogs continue to appear as sporadic cases and only one of the five reported had any known contact with another rabid dog. House cats are especially prominent among sporadic cases. An infection experiment with cotton rats, which are common in the vicinity of sporadic cat rabies cases and are frequently the prey of hunting house cats, reveals that they are not good transmitters of rabies and casts doubt on them as a potential reservoir. Experiments are underway for similar work on gray squirrels and are planned for other cat prey species.

Epizootic rabies in foxes was not reported in any county, although fox populations in several west Florida counties have reached the danger level, and rabid foxes were reported from several counties just across the line in Alabama. Counties likely to be involved were alerted, and surveillance was intensified. A series of newspaper warnings was released urging pet immunization. One sporadic fox case was reported from peninsular Florida.

Among miscellaneous species, one horse and two skunks were reported from an area where rabid raccoons occurred. A rabid flying squirrel, the first on record, was investigated intensively and found to be associated with a rabid yellow bat population. Details of this investigation were published.

Most of October and November was spent on investigations of encephalitis outbreaks in which arthropod-borne viruses were suspected. Three counties were involved, and collections of mosquitoes and vertebrate blood samples were taken from each. Extensive ecological information was assembled on bird, mosquito and other arthropod populations in each case.

MILK SANITATION SECTION

S. O. NOLES, B.S., M.P.H.

LEWIS W. WILLIS, B.S., M.P.H.

There is a continuing trend toward a reduction in numbers of both milk pasteurization plants and producing farms. At the same time, those plants and dairy farms remaining in business are increasing in size. Considerably more milk was produced and processed during 1961 than during 1960. From a high of better than 1200 milk producers in 1950, there are now less than 850. This increase in size of operation, especially of dairy farms, is also increasing the complexity and number of problems from a quality production standpoint.

Marketing methods have also continued to shift from the home delivery to increased sales through supermarkets and "dairy stores." Refrigerated open display cases have become a definite problem with this change: many of these cases do not have sufficient refrigeration to maintain a sufficiently low temperature to prevent deterioration of quality; there is a tendency to overfill the cases, exposing the product to room temperature; milk products are often left in the dairy cases too long.

Purchase of such products creates a distaste in the mind of the consumer and reduces customer acceptance of all dairy products. Regulatory authorities have been alerted concerning these problems and progress toward correcting them is being made.

During the early part of the year a meeting was held in Jacksonville at which the application of basic sanitation principles was discussed in relation to modern milk production methods. Key regulatory personnel of agencies concerned from all sections of the state contributed to discussions which arose.

With the advent of cleaned-in-place pipeline systems, there has been a gradual swing to vacuum cold-wall storage tanks. This is especially true on the larger dairy farms (500 cows or more). This development has resulted in the tendency to eliminate the straining or filtering of milk on the farms. The elimination of filtering, along with development of an effective method of sediment testing, has revealed several items in production practices which need considerable improvement. Among the items revealed are: conditions of holding areas, need for clipping of cows' udders, need for better preparation of cows for milking, feeding practices—good and bad, and need for development of more effective methods for detection of mastitis infection.

Information discussed and revealed at this meeting is being applied to milk production practices throughout the state. The effects are being revealed in various ways. Observing the gradual changes at dairies toward better production methods is an encouraging outgrowth. Follow-up work by milk consultants and local control officials is continuing as a result of this cooperative effort.

Results of the addition of another mobile laboratory by the Dairy Division of the State Department of Agriculture, to be used chiefly for detecting presence of insecticides in milk, are also encouraging. Regulatory personnel of both agencies are using this added facility for greater consumer protection.

Among other stepped-up activities is that of radionuclide surveillance of milk. The Division of Veterinary Public Health is working cooperatively with other divisions and bureaus in this program. In spite of increased worldwide testing of nuclear devices, results of the tests of milk in Florida reveal that levels of the various radionuclides are far below the tolerances which have been established as being safe. This is valuable information from the standpoint of the consumer.

Movement of milk with air, especially in milk pasteurization plants, is a trend which is increasing in use. This, to some extent, is developing in conjunction with automation of plant operations. The 3-A Sanitary Standards Committee (international in scope) is developing recommended practices for application of air under pressure, which will be in contact with milk. One of the milk consultants is a member of this committee which is developing these standard practices. A number of precautions must be observed in order to prevent this air from becoming a contaminant.

Some progress has been realized in converting from multiple-use containers to single-service containers, both for milk dispensers and for frozen desserts mix. These multiple-use containers will continue to be a problem until they are eliminated.

During the year the milk and food branch of the U. S. Public Health Service has been active in promoting a general upgrading and greater national uniformity for milk products which come under the interstate classification. This has been in the form of strong recommendations to all the states that milk products for interstate use be selected only from those sources where both the pasteurization plant and its producers are maintaining a sanitation compliance rating of 90 per cent or above. In conformity with this recommendation, the milk consultants, who have been certified by the USPHS as state rating officers, are surveying the milk plants and producers within the state who desire to be placed on the interstate carrier classification list. Eight such surveys have been completed.

In order that a greater uniformity be developed in surveys, such as those mentioned above, the USPHS conducts an annual seminar for all state rating officers within a given region. The milk consultants participate in these seminars. Other states in this region are Alabama, Georgia, Mississippi, South Carolina and Tennessee. These seminars are contributing a great deal in developing uniform approaches by personnel of all states involved.

Even though great strides have been made in securing safe, high quality dairy products in the past few years, it appears that far greater developments are just over the horizon. One such indication is the development of a method of sterilizing fresh milk in such a way that there is scarcely any flavor change and no detectable changes in food value. This process has recently been developed to the practical economical stage which places it within reach of the major milk companies. One decided advantage of this development is that such a product need not be refrigerated until the consumer is ready to use it. And one concern processing sterilized milk states that it is perfectly safe to guarantee the continued quality for a period of one year.

Although the above development has not yet directly affected Florida, it can very definitely do so in the fairly near future. And when it does, the whole picture of milk production and processing will change rapidly.

BUREAU OF LABORATORIES

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NATHAN J. SCHNEIDER, Ph.D., M.P.H.
Director

The bureau provided laboratory services to the local health units and to the bureaus and divisions of the State Board of Health for the successful accomplishment of their many and varied public health programs. Similarly, diagnostic and epidemiologic assistance was provided to physicians in Florida. The bureau carried out its responsibilities as charged by state regulations to approve private and hospital laboratories for the performance of syphilis serology on prenatal and premarital patients. It also assisted the Board of Examiners in the Basic Sciences to license certain medical technologists and to regulate medical laboratories when operated by specialists other than licensed practitioners of the healing arts.

Effective January 15, 1961, Florida State Chapter 500, Food, Drug and Cosmetics Law, placed upon the bureau the responsibility for laboratory services relating to regulation of drugs, cosmetics and devices sold in Florida. Budgetary support to employ two chemists was provided later in the year; however, it has not been possible to find a qualified chemist for the senior position because of the low salary level assigned to it. A search is being made to locate a chemist with analytical chemistry experience in drugs and other pharmaceuticals, as well as knowledge of the special problems in approving labels for such products.

The annual report of last year referred to the establishment of a radiological chemistry section in the bureau. A well-trained and experienced radiological chemist has been employed and assumed the responsibility of this section which was moved to the regional laboratory building in Orlando where more adequate laboratory space was available. A technician was assigned to the section. There remains the urgent need for certain sophisticated radiological testing and measuring equipment in order to satisfy the needs of the control programs proposed by the Division of Radiological and Occupational Health and the Bureau of Sanitary Engineering.

The senior laboratory staff remained relatively stable during 1960. Biennial budgetary requests for 22 additional laboratory personnel were reduced to seven by the budget commission and the legislature. The added personnel were assigned: one chemist and one technician to Jacksonville; two technicians to Tampa; one each to Miami and Orlando and a bacteriologist to the Marine Laboratory in Apalachicola. Every effort was made to reduce unprofitable tests and services in order to stay within the personnel and other budgetary limitations; however, this was a Herculean task, since every county in Florida was literally bursting its seams with the influx of new industry and increased population.

DIAGNOSTIC SERVICE

As in previous years, the laboratory offered a wide variety of diagnostic services (Table 31). The total number of examinations (2,686,166) marks a slight increase over the previous year; however, this total has stayed around the two and one half million figure for the past five years.

In general, the totals have remained relatively stable by reducing or eliminating nonproductive test procedures in order to offset the increase resulting from population growth and added services. In certain situations, particularly sanitary and environmental bacteriology, the laboratory has arbitrarily restricted the number of specimens accepted to avoid being overwhelmed by the influx of specimens far beyond its capabilities. As compared to the previous years, Jacksonville, Tampa, Miami, Tallahassee, West Palm Beach and Pinellas County laboratories had moderate increases in the overall number of examinations performed. The other laboratories recorded very little change. There were increases in examinations for syphilis, miscellaneous bacteriology, parasitology, mycology, blood chemistry, water chemistry and virology including rabies.

The trend of increased examinations in sanitary bacteriology, particularly pollution water samples, continued upwards; a total of 52,460 examinations were performed compared to 25,465 in 1957. There was a slight drop in the number of drinking and pool water samples in 1961. However, when comparing the steady climb from 126,466 examinations in 1957 to 184,862 in 1960, it would appear that the demands for this service had dropped off in 1961, since only 181,222 examinations were performed in the bureau. This change was more apparent than real; it must be recorded that five county health departments initiated testing private wells with the membrane filter technic. This part of the load usually carried by the bureau was assumed by these health units. Every encouragement was given to other local health units to do the same. In each instance, before the health department installed the membrane filter procedure, special training and instruction was provided to a sanitarian or other designated personnel and a continuing evaluation of performance was maintained by the bureau to insure valid results of water tested in the local health unit. Since the cost of this service was borne by the health unit, it can be assumed that only those local units with problems of shipment of specimens to the central and regional laboratories will be interested in testing their waters locally.

The bureau changed over completely to the membrane filter procedure in testing drinking waters in all of its laboratories. This resulted in a considerable saving of technician time and test results are completed in less than 24 hours as compared to the 48-96 hour lactose fermentation procedure. Pollution waters continued to be examined by the latter technic however, because its results were found to be more useful in comparing them to earlier studies. There are also certain technical difficulties in using the membrane filter procedure for highly polluted waters which made it more desirable not to abandon the fermentation technic at this time.

Milk and dairy product examinations amounted to 172,932 during the year under review. This level of work has been arbitrarily held down to keep within the limits of laboratory capabilities.

The results of examinations for all laboratories are indicated in Table 32. In 1961, a total of 704,118 blood specimens were examined for syphilis by the standard serologic tests, of which 37,608 were reactive.

Excluding the unsatisfactory specimens, the proportion reactive was 5.4 per cent. This compared with 5.2 and 4.9 per cent for 1959 and 1960, respectively. A total of 104 blood specimens were referred to the Venereal Disease Research Laboratory in Atlanta for TPI testing and 44 or 42.3 per cent were found reactive. This is consistent with findings in previous years.

The number of specimens found positive for diphtheria decreased from 217 in 1960 to 148 during 1961. As in the past years, isolations of virulent diphtheria from nose and throat specimens indicate the important need for continuing extensive immunization programs in the younger age groups.

The total number of public health tuberculosis specimens examined during 1961 amounted to 39,091 of which 2296 or 5.9 per cent were positive for *M. tuberculosis*. There remains a significant reservoir of infection in Florida. It is noted that aerosol bronchial lavage specimens were beginning to be submitted to the public health laboratory as a complement to and possibly a substitute for the gastric lavage type of specimen. During the year under review, a total of 70 aerosols yielded positive findings as compared to 47 gastrics. A special study carried out cooperatively by the Dade County Department of Public Health and the University of Miami Chest Unit during the past three years indicated that aerosol bronchial lavage specimens compared favorably to gastric lavage specimens for the diagnosis of tuberculosis. A continuing increase in aerosol specimens can be expected for submission to the public health laboratory in lieu of or to supplement gastric specimens for tuberculosis examinations.

Smear specimens submitted for the diagnosis of gonorrhea decreased in number from 40,864 in 1960 to 39,091 in 1961. The proportion of positives increased to 16.5 per cent as compared to 10.1 per cent in 1958, 12.5 in 1959 and 15.2 in 1960. Cultures for *N. gonorrhea* decreased from 28,061 specimens in 1960 to 26,113 during the year under review and the proportion positive, 8.0 per cent and 5.8 per cent, respectively.

The number of fecal specimens examined for enteric pathogens decreased from 45,391 in 1960 to 43,516 in 1961. There were 71 isolations of *S. typhosa* and 522 isolations of other *Salmonella*. This represents very little change from the number positive in 1960. In contrast, there was a marked increase in the number of positive *Shigella* isolations, 168 in 1961 as compared to 94 in 1960.

Human leptospirosis was confirmed by laboratory findings in eight patients during the year of this report. Paired serum specimens of patients with clinical aseptic meningitis of suspected viral etiology were tested for a rise in agglutination titer against leptospiral antigens.

Among the miscellaneous examinations, there was a continuing increase in the finding of early cases of syphilis. In the year of this report, 194 darkfield specimens were found positive for *T. pallidum*; this is in contrast with none in 1957 and 1958, 72 in 1959 and 160 in 1960. As

more interest is shown by the clinician in checking suspect lesions, more positive darkfields will be found. Virtually all of the positives reported for 1961 were found in the Venereal Disease Clinic of the Dade County Department of Public Health. Most venereal disease clinics in other health units do not necessarily report positive darkfields to the bureau, thus the totals in this report reflect a percentage of the actual number found.

The number of urine cultures doubled during the year under review; 522 in 1960 as compared to 1030 in 1961. The major part of this increase was due to the added interest shown by several urologists in requesting bacterial counts of urine specimens from patients with chronic kidney infections. Since a fresh urine specimen is required for this examination, the bureau has attempted to encourage physicians to use their local hospital or clinical laboratories.

There was an increase in specimens found positive for fungal infections; in 1961 a total of 1533 specimens as compared to 1450 in 1960 and 1155 in 1959. Much of this increase may be attributed to the interest of dermatologists, using griseofulvin therapy.

A total of 1570 bacteriological cultures were submitted to the bureau for identification. This service is of value to hospital and private laboratories with limited facilities or reagents necessary to characterize or identify such specimens.

In the field of dental caries bacteriology, 3693 saliva specimens were examined for lactobacillus counts. This service to the dentists in Florida continued on a statewide basis and has apparently met with favorable acceptance since the number of specimens tested during the year under review represented an increase of 32 per cent over 1960. Reports of lactobacillus counts were sent to the dentists through the Bureau of Dental Health for their professional interpretation and guidance.

There was a moderate increase in the number of fecal specimens examined for intestinal parasites. In 1961 a total of 123,993 specimens were examined as compared to 120,405 in the preceding year. As in the past, hookworm, ascaris, pinworm and the various protozoa were commonly found. It is reported with pleasure that no malaria was found during the year under review.

In the chemistry laboratory, there was a moderate increase in the number of specimens examined, particularly in blood tests for sugar, cholesterol and hemoglobin. In contrast, fewer specimens were examined for toxicology and narcotics; however, the latter examinations represent a large amount of work as the chemists were required to testify in court on most of these specimens. The number of public water supply specimens examined for complete chemical analysis increased from 841 in 1960 to 1326 during the year under review.

The radiological chemistry section was moved to the Orlando Regional Laboratory in September of 1961. The report reflects examinations in the Jacksonville laboratory before September and a continuation

in Orlando. A total of 309 water, 74 air and 29 miscellaneous environmental materials were examined during the year. Water samples submitted increased from 30 to 50 per month. Funds to purchase a low background beta ray counter were provided and the order was placed at the close of the year. When received, this new equipment will increase the accuracy of counting low-level beta emissions from environmental samples by a factor of 100. It also will double our present capacity of counting for alpha and beta emissions on these samples.

Milk samples were collected and stored for future examination to determine radionuclide counts. Although not reported in Table 32, the preliminary chemical separation and processing of these specimens were begun in anticipation of their being tested for the presence of strontium 90 and cesium 137 when the low background beta ray counter becomes available.

The numbers of specimens examined by the Veterinary Public Health Laboratory continued to decrease. The changeover of veterinary specimens from the State Board of Health to the Veterinary Diagnostic Laboratory in Kissimmee is virtually complete. The few specimens submitted to the bureau were examined for leptospirosis, streptococcus, *Shigella* and *Salmonella*. These diseases are readily transmissible to man and hence are of importance in public health.

Diagnostic services for viral and rickettsial infections were offered on a statewide basis from the Jacksonville laboratory. The numbers of specimens examined by serology or for virus isolations increased substantially. As presented in Table 33, there was a marked decrease in the number of positive findings by patient. However, increased positive findings were obtained for types 2 and 3 poliomyelitis and the Coxsackie viruses. In contrast with 1960, there were no laboratory cases of influenza A detected from among the patients studied in 1961.

The total number of animals examined for rabies (Table 32) increased moderately. More significantly, the number of positive findings increased from 30 in 1960 to 55 in 1961. Most of this increase in positives was in the raccoon. However, more positives were also detected in the dog, horse, flying squirrel, skunk and bat. Fewer animal brains were subjected to mouse inoculation as compared to previous years because of the wider use of the fluorescent antibody procedure.

The cooperative program in the laboratory field established between the State Board of Health and the State Tuberculosis Board completed its sixth year. This arrangement has been of mutual advantage to both agencies in their contribution to the success of the tuberculosis control program in the state. The nature and extent of the laboratory studies performed in the laboratories of each hospital are given in Table 35. A total of 48,710 bacteriological examinations were made for tuberculosis and 5170 cultures of *M. tuberculosis* were tested for susceptibility to antituberculosis drugs. The latter information is invaluable to the clinician in the management of his patients. The hospital laboratories performed a large number of other bacteriological and mycological tests. In the

clinical sections, there was much activity as indicated by the 21,349 hematological examinations, 12,690 blood chemistry examinations and 7989 urine analyses. A program review was made of the clinical chemistry procedures in the hospital laboratories by Gerald R. Cooper, M.D., Communicable Disease Center, U.S. Public Health Service. Recommendations leading to standardization of procedures and better quality control were put into effect as a result of this study.

SPECIAL STUDIES

The bureau continued its very active program in special studies during 1961. Tables 31 and 32 provide a listing of the wide variety of special projects with which the bureau was concerned.

The identification of cultures belonging to the *Salmonella-Arizona* group was carried out. A total of 598 cultures were typed during the year, compared with 432 in 1959 and 786 in 1960.

Research in the use of fluorescent microscopy in the laboratory diagnosis or identification of rabies, streptococcus, gonococcus, diphtheria and syphilis micro-organisms received major attention. There is presented in Table 34, comparative findings of the Negri body, mouse inoculation and fluorescent antibody (FRA) tests for the diagnosis of rabies virus in animal brain tissues. These data, accumulated over a three year period from 1958-1961, indicate with reasonable certainty that the FRA results are just as reliable as the mouse inoculation test. A total of 2116 animals were examined and 168 found positive for rabies by one or more tests. Although the Negri body test revealed only 148 of these as positive, it will continue to be a valuable diagnostic tool because of its simplicity and relative ease of performance. There were only four discrepancies in the findings between the mouse inoculation and FRA test. Three of these (dog, fox, mule) occurred early in the study while the technic was relatively new; the remaining discrepancy involved a raccoon which had died after vaccination with avianized vaccine virus. The brain was negative for Negri bodies and by mouse inoculation, however, the FRA test was positive. As a result of these overall findings, the FRA test is reported out on a routine basis and is considered as reliable as the mouse inoculation reports.

Fluorescent antibody (FA) studies for the rapid identification of Group A streptococci were carried forward during the year. An attempt was made to determine how this procedure would best be utilized in the public health laboratory. The heart disease control program of the USPHS has indicated that it would be useful to the clinician in the diagnosis and treatment of nose and throat infections of Group A streptococci. This need could be fulfilled only if the equipment and procedure were available in many private and hospital laboratories. It is clear that the public health laboratory has the primary responsibility of providing training and consultative assistance to private and hospital laboratories working to utilize this technic for the rapid identification of Group A streptococci. Thus a two-week workshop was provided in Jacksonville and 10 bacteriologists from various laboratories attended

the course. This course was conducted jointly with personnel from the USPHS. In addition, the state laboratory is utilizing this procedure to identify streptococci which are cultured from nose and throat specimens by the conventional bacteriological technics.

During 1961, an outbreak of diphtheria in a small community in Pinellas County afforded the opportunity of applying the FA technic to the rapid diagnosis of this disease. With the help of the Communicable Disease Center, a limited study was carried out. Clinical specimens were examined by the conventional and fluorescent antibody methods. Preliminary findings indicated that the procedure was promising, but there was a need to develop a better fluorescein labeled diphtheria antiserum and to evaluate its use.

The use of the FA procedure for the diagnosis of gonorrhea and syphilis infections was investigated. Both of these studies were supported by a grant from the USPHS. The gonorrhea study was part of a national project to determine the relative efficacy of the FA technic in demonstrating infection in females and to determine the relative ability of 10 different therapeutic regimens to cure an individual of *Neisseria gonorrhea* infection. The Venereal Disease Clinic of the Jacksonville and Duval County Health Departments provided the clinical cases for this study. Preliminary findings indicate that the FA technic provides more reliable findings than the conventional procedure. However, it can only remain as a research tool until a fluorescein labeled *N. gonorrhea* antisera can be obtained commercially. Currently, limited quantities of this reagent are available only from the Venereal Disease Research Laboratory of the USPHS. In addition, the use of this procedure for mailed-in specimens from distant VD clinics remains to be developed. A preliminary study with specimens collected in Tallahassee and shipped to Jacksonville for examination has been tried. However, because of the labile nature of the antigens on the gonococcus, it is necessary to culture the organism before shipment and to prepare the bacterial growth for examination by the FA procedure within 16 to 20 hours of incubation of the culture. Older cultures lose the antigen required in the FA test.

The fluorescent treponeme antibody (FTA) procedure for the diagnosis of syphilis as a substitute for the TPI test was studied. Preliminary findings indicate that the FTA provides findings which are comparable to the TPI. However, the usefulness of this test is limited to cases requiring special study, particularly biologic false positives. As a routine, the VDRL procedure remains the test of choice to handle the large numbers of specimens. Those requiring further study should be tested by the Kolmer complement fixation procedures utilizing the regular Kolmer cardiolipin and the Reiter protein (KRP) antigens. Unfortunately, there is no one serological test for syphilis which will provide the clinician with the correct diagnosis 100 per cent of the time. Repeated testing with the VDRL and the complement fixation, TPI and FTA tests may be required to establish the diagnosis. The patient must be studied carefully and considerable clinical judgment may be necessary.

Further studies in syphilis serology included the use of the rapid plasma reagin (RPR) test in screening for syphilis among the migrant laborers in Palm Beach County. The county health department in that area carried out the project with technical and consultative assistance from the state level.

More than 22,000 comparative tests of two different methods of the "Unheated Serum Reagin" (USR) test for syphilis and the VDRL test were performed during the year under review. This was done to determine the efficacy of the USR test as a screen for the VDRL procedure, since USR procedure requires less manipulation of the specimen. It appears that this test may be desirable as a screen, however, studies have not been completed.

The investigation of rabies infections in wild animals was continued during the year. Experimental infection of rabies in cotton rats was also studied. This project, supported by the USPHS, has been reported elsewhere in this volume (Division of Veterinary Public Health).

Limited studies to determine the nature and extent of arthropod-borne encephalitis virus infections were carried out. With the cooperation and assistance of the Bureau of Entomology, mosquito collections were made in the vicinity of Vero Beach and in the Myakka River area. Examination of 383 mosquito pools was completed in suckling mice with negative results. There remain approximately 400 more pools to examine for the presence of arbovirus.

Mosquito and bird collections were made in the Titusville area following the report of an outbreak of Eastern equine encephalitis (EEE) in a flock of pheasants. A total of 266 specimens examined in "wet chicks" yielded 10 isolations of EEE virus from pheasants.

The laboratory cooperated with the Hillsborough County Health Department in the evaluation of a commercial inactivated but supposedly highly purified poliovirus vaccine against the regular Salk vaccine. A total of 142 paired serums collected from children in the study were examined for neutralizing antibodies against the three types of poliovirus. The results indicated that the test vaccine was no better in stimulating antibody response than the regular commercial preparation of Salk vaccine.

Studies of the unclassified mycobacteria were continued in cooperation with the Division of Epidemiology. This project supported by a grant from the National Institutes of Health of the USPHS has been reported elsewhere (Bureau of Preventable Diseases).

Bacteriophage typing of coagulase positive staphylococci in hospital-acquired infections was continued. A total of 592 cultures were submitted by hospital laboratories and private physicians in connection with investigations carried out to determine the source of infections.

A study of diarrheal disease due to *Salmonella* and *Shigella* was carried out in one of the Sunland Training Centers. This investigation was supported in part by Parke-Davis and Company who furnished drugs, in an attempt to evaluate suggested therapeutic regimens.

In the Jacksonville laboratory, a study concerned with the nature and extent of airborne pollen in selected areas in Florida was continued. This project was supported in part by a grant from the Florida Tuberculosis and Health Association. Daily sampling from approximately 30 stations were shipped to the Jacksonville laboratory for analysis, to determine the amount of pollen circulating in the air. A preliminary report of this activity has been prepared and made available to county health departments and to interested individuals, particularly prospective visitors and tourists to Florida.

The Miami laboratory participated in three special studies during the year. One supported by a contract with the Armed Forces Epidemiological Board of the U.S. Department of Defense is concerned with a determination of the role of viruses in diarrheal disease in man. A second project, supported by a USPHS grant to the University of Miami Medical School, is concerned with the collection and examination of enteric viruses circulating in Dade County for a two-year period following the mass feeding of the community with a live virus oral trivalent polio vaccine. Sewage specimens are collected on a weekly basis and are being examined for polio and other enteric viruses. Preliminary data indicated that no polio virus could be detected for almost 18 months following the vaccine program. This means that there are a group of babies under two years old who have not had the opportunity of being immunized by the usual circulation of wild polio virus and are quite susceptible to this disease. There is a need for continued use of the oral poliovirus vaccine to insure protection for the babies and young children in the community. A third project in the Miami laboratory was concerned with a comparison of the Reiter Protein (KRP) complement fixation tests for syphilis. This project was supported in part by a research grant from the Venereal Disease Branch of the USPHS. Results suggest that the KRP test is somewhat less sensitive than the Kolmer cardiolipin antigen complement fixation test. This emphasizes the need for clinicians and laboratory serologists to appreciate the fact that different serological tests for syphilis may provide discrepant results when applied to the same serum. Thus a proper understanding of the limitations of each test procedure must be taken into account in applying its results to the diagnosis of the case in question.

Limited studies were carried out in all of the other regional laboratories. In West Palm Beach and in Tallahassee, investigation of the nature and extent of unclassified mycobacteria in water, raw vegetables and environmental fomites was carried on. The use of the aryl sulfatase test for identifying *M. fortuitum* was also studied. In Pensacola, special studies included an evaluation of a drug in the treatment of ringworm of the scalp and a bacteriological procedure for the detection of sub-clinical urinary infections. In Tampa, studies in the bacteriological examination of fecal specimens for enteric pathogens and nose and throat swabs for beta-hemolytic streptococci and for diphtheria were carried out. In Orlando, studies centered around the use of the membrane filter technic for the determination of coliform organisms in ice and in drinking

water. Most of these studies were supported with state funds which use is justified, since the experience and training obtained from these studies improve the technical proficiency of the laboratory personnel and provide a stimulus for their scientific knowledge of the public health laboratory.

CONSULTATIVE AND EDUCATIONAL SERVICES

Technical and consultative guidance was provided to six medical technologists, one pathologist, three health officers, 11 sanitarians and water plant operators, two classes of student sanitarians and two medical visitors from Egypt and Cuba. High school and college students were given orientation tours of the laboratory in cooperation with local and nearby educational institutions.

The bureau approved 14 additional clinical laboratories to perform standard serological examinations for syphilis for premarital and prenatal patients. There was a total of 215 approved laboratories as of the close of 1961.

A short course in the use of fluorescent microscopy to identify Group A streptococci was conducted during the year. Ten students from various laboratories in Florida attended the course which was presented in cooperation with the Communicable Disease Center and the Heart Disease Control Program of the USPHS.

The bureau carried out the re-registration of medical laboratories and assisted the Board of Examiners in the Basic Sciences to license medical technologists and medical technologist directors as provided by Chapter 483 of the Florida Statutes 1955.

Continuing visits and inspections were made to 21 commercial dairy laboratories to certify their performance of bacteriological and related tests in accordance with Standard Methods and USPHS requirements.

A total of eight members of the laboratory staff took refresher training short courses offered by the USPHS. These were in the fields of fluorescent antibody microscopy, sanitary bacteriology, tuberculosis bacteriology, virology and radiochemistry.

Revision as of January 1, 1961, of Previously Published List of Laboratories Approved for Premarital and Prenatal Serology.

ADDED

West Orange Memorial Hospital Laboratory, Winter Garden
 Vaughn Clinical Laboratory, 5965 Ponce de Leon, Coral Gables
 David D. Bennett, M.D., Callahan Medical Center, Callahan
 E. Gonzalez, M.D., 417 Eaton Street, Key West
 Nina M. Christi Clinic, P. O. Box 151, Titusville
 Medical Laboratory, 1212 N. Magnolia Drive, Tallahassee
 Alan E. Zimmer, M.D., 4905 Broadway, West Palm Beach
 Medical Center Clinical Laboratory, Highway 50 at Lake Avenue,
 Clermont
 Clay Memorial Hospital Laboratory, Green Cove Springs

Drs. Crews, Maxon and Russell, 179 S. Magnolia Avenue, Ft. Walton
 Doctor's Clinical Laboratory, Box 513, Winter Garden
 Joseph J. Scarlet, M.D., Key West
 Blood Bank, Teaching Hospital, University of Florida, Gainesville
 Drs. Parker and Salina, P. O. Box 578, Valparaiso

REMOVED

Jackson County Hospital Laboratory, Marianna
 Madison County Hospital Laboratory, Madison
 Miami X-Ray and Clinical Laboratory, Olympia Building, Miami
 Rentz Medical Laboratory, 3435 N. W. 17th Avenue, Miami
 King Memorial Hospital Laboratory, Lake Butler
 Coral Gables Clinic, 263 Aragon Avenue, Coral Gables
 Sebring Clinical Laboratory, Sebring

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TABLE 31
EXAMINATIONS PERFORMED BY LABORATORIES—1961

	Jacksonville	Tampa	Miami	Pensacola	Tallahassee	Orlando	West Palm Beach	Daytona Beach	Pinellas County	Total
GRAND TOTALS.....	939,305	615,514	511,192	143,329	136,920	168,091	122,672	13,920	35,283	2,686,166
SEROLOGY										
Syphilis.....	415,275	368,484	348,264	73,357	50,602	57,641	45,112			1,358,785
Agglutinated & related tests.....	2,096	206	1,108	62	61	66	50			8,649
Blood typing (Rh).....	5,591	5,765	2,708	1,575	1,115		1,128			17,882
DIAGNOSTIC BACTERIOLOGY										
Diphtheria & associated infections.....	5,493	2,805	344	46		662	222	183		9,555
Tuberculosis.....	75,964		18,471		7,117		10,899			112,451
G.C.—Smear.....	18,412	22,126	19,518	5,298	10,840	2,042	390	96		78,722
Culture.....	2,067	15,798	4,805	2,290	2,208	11	2			27,176
Enteric.....	60,516	55,980	9,216	3,294	23,084	22,084	4,114	72		178,360
Blood culture.....	488		32	64	80	600	64			1,328
Miscellaneous.....	585									585
SANITARY BACTERIOLOGY										
Dairy products.....	72,460	13,644	5,273	5,654	100	30,721	2,510	374		130,736
Water, drinking & pools.....	20,094	48,560	25,254	13,476	17,706	13,272	21,324	5,886	9,860	172,932
Pollution surveys.....	23,520	41,262	26,320	9,744	10,182	18,582	28,268	5,960	16,784	181,222
Food (sanitary quality tests).....	12,315	6,590	10,795	6,325	1,635	4,865	940		8,995	52,460
Food Poisoning.....	1,897	56	465	56	497	749			63	3,773
Utensils.....	744	246	538	42	214	2,100	16			3,728
DENTAL CAVES BACTERIOLOGY	261	13	32	12		973	18	248	81	3,862
PARASITOLOGY	7,046									7,046
Intestinal parasites.....										
Malaria.....	51,298	24,228	6,703	15,917	8,857	10,733	3,677	677		122,090
MYCOLOGY	82	44	16	6	2		4			164
CHEMISTRY	14,739	21	78	567		1,701	78			17,184
Blood.....	14,470	10,363	905	5,209	1,071	10	1,327	192		83,547
Spinal fluid.....	1,134		182	43	67	13				1,439
Urine.....	36		118	2			101	232		489
Toxicology.....	882		252							1,134
Water.....	3,959		331							4,290
Other.....	2,263		5,560							7,823
RADIOLOGICAL CHEMISTRY										
Water.....	995					550				1,545
Air.....						148				148
Other.....	58									58
VETERINARY PUBLIC HEALTH										
Leptospirosis.....	1,290									1,290
Other.....	1,050									1,050

TABLE 31 (Continued)
EXAMINATIONS PERFORMED BY LABORATORIES—1961

	Jacksonville	Tampa	Miami	Pensacola	Tallahassee	Orlando	West Palm Beach	Daytona Beach	Pinellas County	Total
VIRAL SEROLOGY										
Neutralizations.....	6,190									6,190
Complement fixation.....	25,744									25,744
ISOLATIONS (except rabies).....	10,107		1,284							11,391
Rabies—microscopic.....	1,414	1,528	534	290	112	508				4,386
mouse inoculation.....	1,023									1,023
SPECIAL PROJECTS										
Salmonella typing.....	3,588									3,588
Fluorescent antibody.....										
Rabies.....	4,785									4,785
Streptococcus.....	5,500									5,500
Gonococcus.....	15,180									15,180
T. pallidum (syphilis).....	1,092									1,092
Wild animal (including bats).....										
Rabies virus isolations.....	5,707									5,707
Cotton rats (rabies).....	4,680									4,680
Arthropod-borne virus isolations.....										
Mosquitoes (Vero Beach).....	483									483
Mosquitoes & birds for EE, (Titusville).....	266									266
Hillborough Co. polio vaccine.....	8,591									8,591
Unclassified mycobacteria.....	3,436									3,436
Staphylococcal bacteriophage typing.....	17,760				1,328		2,428			17,760
Diarrheal disease in an institution.....	3,180									3,180
Diarrheal disease in culture media.....	900									900
Evaluation of culture media.....	7,599									7,599
Aerobol pollen studies.....										
Diarrheal disease studies (AFEB).....			14,920							14,920
Enterovirus sewage studies.....			4,470							4,470
Syphilis serology (Kolmer vs. Reiter C.F.).....			2,106							2,106

TABLE 32
SPECIMENS SUBMITTED FOR EXAMINATION
BY FINDINGS, 1961

EXAMINATION	Number of Specimens				
	Positive Specimens		Negative	Unsatisfactory	Total
	One or More Positive Findings	Positive for Findings Indicated			
SEROLOGY					
Syphilis.....	37,608		654,935	11,575	704,118
Agglutinated and related tests.....	665		2,319	117	3,101
Typhoid.....		295			
Typhus.....		9			
Brucellosis.....		52			
Tularemia.....		4			
Heterophile.....		427			
Other.....		2			
Blood typing (Rh).....					16,900
DIAGNOSTIC BACTERIOLOGY					
Diphtheria and associated infections.....	1,245		2,910		4,155
C. diphtheria.....		148			
Vincent's.....		38			
Streptococci.....		422			
Other.....		815			
Tuberculosis.....	2,296		34,394	2,401	39,091
Sputum.....		2,186			
Aerosol.....		70			
Urine.....		12			
Gastric.....		47			
Other fluids & exudates.....		31			
Animal inoculations (G.P.).....					53
Gonorrhea—smears.....	21,495		17,865	355	39,716
Intracellular Gram negative diplococci.....		6,480			
Extracellular Gram negative diplococci.....		454			
Trichomonads.....		3,921			
Yeasts.....		1,951			
Vincent's organisms.....		313			
Many pus cells.....		9,466			
Gonorrhea—cultures.....	1,499		24,178	436	26,113
Enteric infections.....	788		42,620	108	43,516
S. typhosa.....		71			
Other Salmonella.....		522			
Shigella (Flexner & Sonnei).....		168			
Other.....		48			
Blood Cultures.....	12		154	3	169
Brucella.....		0			
Other.....		12			
Leptospirosis.....	8		577		585
Miscellaneous.....	10,581		7,675	58	18,314
Darkfield—T. pallidum.....		194			
Chancroid—Ducrey's.....		31			
Granuloma—Donovan bodies.....		42			
Gonococcus in eye.....		20			
Other eye smears.....		110			
Other eye cultures.....		62			
Urine cultures.....		1,030			
Other fluids & exudates.....		664			
Mycological examinations.....		1,533			
Organisms for identification.....		1,570			
Sensitivity testing.....		658			
Other examinations.....		4,425			
Miscellaneous special services.....		242			
SANITARY BACTERIOLOGY					28,817
Dairy products.....					90,769
Water, drinking & pools.....					10,509
Water, pollution surveys.....					639
Foods (sanitary quality tests).....					596
Food poisoning.....					1,734
Utensil swabs.....					

TABLE 32 (Continued)
SPECIMENS SUBMITTED FOR EXAMINATION
BY FINDINGS, 1961

EXAMINATION	Number of Specimens				
	Positive Specimens		Negative	Unsatisfactory	Total
	One or More Positive Findings	Positive for Findings Indicated			
DENTAL CARIES BACTERIOLOGY					3,693
PARASITOLOGY					
Intestinal parasites.....	23,192		98,898	1,903	123,993
Hookworm.....		8,512			
Ascaris.....		6,022			
Enterobius.....		3,658			
Trichuria.....		697			
Other helminths.....		15			
E. histolytica.....		181			
Nonpathogenic amoeba.....		4,422			
Flagellates.....		3,886			
Others.....		3			
Malaria.....			77		77
P. vivax.....		0			
CHEMISTRY					34,195
Blood.....					1,036
Spinal fluid.....					227
Urine.....					1,326
Water.....					1,464
Toxicology & narcotics.....					5,793
Other.....					
Radiological chemistry.....					309
Water.....					74
Air.....					29
Other.....					
VETERINARY PUBLIC HEALTH					288
Leptospirosis.....	23		218	47	288
Other.....	53		55		108
VIRAL SEROLOGY					1,523
Neutralizations.....					6,259
Complement fixation.....					1,440
ISOLATIONS (except rabies)					2,193
Rabies—microscopic.....	55		2,080	58	
Dog.....		5			
Cat.....		4			
Fox.....		1			
Horse.....		1			
Raccoon.....		38			
Squirrel.....		1			
Skunk.....		2			
Bat.....		3			
Mouse inoculations.....					1,001
SPECIAL PROJECTS					598
Salmonella typing.....					1,595
Fluorescent antibody.....					275
Rabies.....					3,036
Streptococcus.....					273
Gonococcus.....					
T. pallidum (syphilis).....					
Wild animal (including bats).....	8		671		679
Rabies virus isolations.....					75
Cotton rats (rabies).....					
Arthropod-borne virus isolations.....			383		383
Mosquitoes (Vero Beach).....					
Mosquitoes—birds for EE (Titusville).....	10		256		266
Hillsborough County polio vaccine.....					876
Unclassified mycobacteria.....					2,465
Staphylococcal bacteriophage typing.....					592
Diarrheal diseases in an institution.....					318
Evaluation of culture media.....					325
Aerosol pollen studies.....					7,699
Diarrheal disease studies (AFEB).....					7,460
Enterovirus sewage studies.....					2,235
Syphilis serology (Kolmer vs. Reiter C.F.).....					2,106
TOTAL					1,244,979

TABLE 33
VIRAL AND RICKETTSIAL DIAGNOSTIC FINDINGS
BY PATIENT IN 1961

	Positive	Negative	Total
Lymphocytic choriomeningitis.....		319	319
Mumps.....	32	307	339
Eastern encephalomyelitis.....		326	326
Western encephalomyelitis.....		124	124
St. Louis encephalomyelitis.....	2	324	326
Herpes simplex.....		11	11
Poliovirus type 1.....	23	310	333
Poliovirus type 2.....	14	327	341
Poliovirus type 3.....	14	317	331
Measles.....	1	33	34
Vaccinia-variola.....		0	0
Murine typhus.....	1	32	33
Rickettsialpox—Rocky Mt. spotted fever.....		63	63
Q fever.....		48	48
Influenza A.....		68	68
Influenza B.....		67	67
Influenza C.....		66	66
Influenza D.....		67	67
Para-influenza 1, 2, 3.....		189	189
Respiratory syncytial.....		3	3
Psittacosis—LGV.....		58	58
Adenovirus.....	2	60	62
Dengue.....		0	0
ECHO types.....	3		3
Cocksackie A9, B4, B5.....	13		13
Other—Undetermined viral agent(s).....		164	164
TOTALS.....	105	3,283	3,388

TABLE 34
FLUORESCENT ANTIBODY (FRA) TEST FOR THE RAPID
DIAGNOSIS OF RABIES IN ANIMAL BRAIN TISSUES
COMPARATIVE FINDINGS, 1958 - 1961

Species	Number Examined	Positive by		
		Negri	Mouse Inoculation	FRA
Dog.....	714	45	53	52
Cat.....	433	7	10	10
Cow.....	18	11	11	11
Hog.....	1	0	1	1
Horse.....	7	1	2	2
Fox.....	75	12	12	11
Raccoon.....	146	52	55	56*
Skunk.....	10	5	6	6
Bat.....	256	11	12	12
Bobcat.....	2	1	1	1
Mule.....	1	0	1	0
Other.....	451	1	1	1
Human.....	2	2	2	2
TOTAL.....	2116	148	167	165

*Raccoon infected with avianized vaccine virus; negative for Negri bodies and by mouse inoculation; positive FRA.

TABLE 35
EXAMINATIONS PERFORMED IN TUBERCULOSIS HOSPITAL
LABORATORIES,* 1961

	Tampa	Lantana**	Tallahassee**	Totals
Totals—Excluding Special Studies.....	52,712	33,707	19,748	106,167
Tuberculosis				
Diagnostic.....	21,695	17,079	9,936	48,710
Drug susceptibility.....	3,255	983	932	5,170
Mycology.....	669	726	660	2,055
Miscellaneous bacteriology.....	3,448	2,425	1,033	6,906
Hematology.....	3,882	7,857	4,610	21,349
Chemistry.....	9,191	2,730	769	12,690
Urine analysis.....	4,887	1,906	1,196	7,989
Other.....	685	1	612	1,298
Special Studies and Reference Tests:				
Unclassified mycobacteria.....	5,410			
INH bioassay (vertical diffusion).....	1,024			
Drug susceptibilities (liquid media).....	195			
Silicotic lesion infectivity study.....	600			
Precipitin study.....	55			

*Operated under direction of Bureau of Laboratories; budgetarily supported by State Tuberculosis Board.

**Combined Regional Public Health and Hospital Laboratories.

BUREAU OF SPECIAL HEALTH SERVICES

S. D. DOFF, M.D., M.P.H.
Director

Health problems of the chronically ill and aged and their prevention are the main concern of this bureau although its programs are also designed to meet health needs of the young and the acutely ill.

The bureau organization consists of two divisions: Chronic Diseases and Hospitals and Nursing Homes, each administered by a medical director. The Division of Chronic Diseases maintains an essential working liaison with the organized voluntary health agencies for heart, diabetes, cancer and vision problems and represents the State Board of Health as a member of the Florida Cancer Council. Its activities in research, community service and education are described in its report.

The Division of Hospitals and Nursing Homes has immediate responsibility for the administration of three distinct programs each of which represents a specific charge under state law. These programs provide for licensure of hospitals, licensure of nursing homes and hospitalization of the indigent and medically indigent. A fourth program provides training and educational opportunities and plans designed to improve the quality of care of persons in nursing homes. These activities are described in the report of the division. Two major advisory committees created by the law advise the bureau director: the Hospital Advisory Committee on matters relating to hospitalization and the Advisory Hospital Council on matters relating to the licensure of hospitals. The division maintains a working liaison with the Division of Public Assistance of the State Department of Public Welfare and with the Florida Nursing Home Association. The director of the bureau also represents this agency as a member of the Joint Council to Improve the Health Care of the Aged.

During the year the bureau was able to give particular attention to program development and to make unusual progress in three areas. These include the cancer control program, a program for the development of services to aid in the prevention of blindness and the nursing home program.

In addition this bureau joined the Bureau of Local Health Services and members of the administrative staff in planning a home nursing program through which county health departments will be able to offer bedside nursing care of the sick at home in addition to traditional public health nursing services. Special efforts were made to insure the rapid evolution of supporting programs, particularly those having to do with training and education of nursing personnel.

Two additional programs, accident prevention and civil defense, were administered by the bureau. At the close of the calendar year responsibility for the administration of these programs was transferred to the Bureau of Local Health Services.

ACCIDENT PREVENTION PROGRAM

CLAUDIUS J. WALKER, M.S.
Consultant

The number of reported poisoning cases treated at the Poison Control Centers again showed an increase, approximately 1000 over the year 1960. Public health nurse follow-up on these cases kept pace with the increased number of cases.

In 1961 the method of reporting ingested poisons was changed so as to list kerosene and aspirin as separate items instead of including them under their former headings of Petroleum and Internal Medications respectively. By actual count they were found to account for 25 per cent of all ingested poisoning.

Under the chairmanship of Ray O. Edwards, M.D., the Committee on Poison Control provided the information necessary for 114 new file cards for the centers which were distributed by this agency. The parent Accident Prevention Committee of the two pediatric groups under the chairmanship of Marvin L. Weil, M.D., furnished colored photographs of poisonous plants.

A detailed study of accidents to residents and employees of nursing homes in the state was initiated on January 1, 1961, in cooperation with the Florida Nursing Home Association (FNHA). This study is to cover the calendar year. Fifty-four homes voluntarily participated in the study.

The cooperative study on accidents to children due to toys and other playthings ended February 28, 1961. The cooperating groups were the National Safety Council, Florida Pediatric Society, Florida Chapter, American Academy of Pediatrics, the Leon-Gadsden-Liberty-Wakulla-Jefferson County Medical Society, the 20 Poison Control Centers and the State Board of Health. The latter acted as the central coordinating agency while the statistical work was done by the National Safety Council. The principal findings were as follows: nearly twice as many boys were involved as girls; most of the accidents occurred in the yard or around the house; the arms and the legs were involved most frequently; most involved falls. Bicycles (most frequently mentioned single object) involved nearly one-fifth of all cases. Items not toys, broken glass, tin cans, tools, lawn mowers were involved in 11 per cent. The total number of accidents reported was 748.

The consultant participated in the preliminary planning for a study of injuries due to sliding glass doors. The ultimate aim of this study is to establish standards or codes governing the construction and/or installation of sliding glass doors so as to reduce, as far as possible, the number of injuries and deaths now occurring from this cause.

Late in the year a study project to determine the types and frequency of accidents to family groups was launched using personnel of selected county health departments as subjects. The Palm Beach County Health Department was the first to volunteer. All local arrangements are com-

plete and collection of data will begin January 1, 1962. This project will run for at least one calendar year. The county health department will collect data on accidents to family members and the state office will do the necessary tabulating and statistical work.

At the instigation of Newton C. McCollough, M.D., discussions were held with him and Joseph F. Gennaro, Ph.D., of the College of Medicine, J. Hillis Miller Health Center, regarding the feasibility of a study of snake bites in Florida. The reports will be submitted by physicians treating snake bite victims and the State Board of Health will act as a clearing house for all information collected.

At the request of the Division of Hospitals and Nursing Homes, fire and/or safety inspections were made on one unlicensed hospital and several nursing homes in the state. These inspections were all made in cooperation with representatives of the fire department involved and/or the Assistant State Fire Marshal for the area. Also at the request of the above division a series of illustrated lectures were started, with the tacit approval of the Florida State Fireman's Association, to acquaint firemen throughout the state with the problems peculiar to nursing homes.

HEALTH MOBILIZATION SERVICES PROGRAM

During 1961, the Health Services Plan for Florida was rewritten and a Health Mobilization Training Course for 1962 was prepared.

Enrollment and attendance was arranged for the coordinator at the Staff College of the Office of Civil and Defense Mobilization at Battle Creek, Michigan, for the training course "Medical Self-Help." Ninety-eight medical self-help kits are allotted to Florida in 1962 for training instructors of this course. The Health Mobilization Program is necessarily an expanding program because the goal is to train at least one member of each family in Florida.

DIVISION OF CHRONIC DISEASES

JAMES E. FULGHUM, M.D.
Director

The major function of the director of this division is to plan and carry out activities in the four major ongoing programs of this division. During 1961 there was considerable expansion of activities in the field of cancer control and in the development of a new program for the Prevention of Blindness. This new program will seek the establishment of prevention of blindness screening centers in several areas of Florida. Cancer control activities in the fields of community services, education and special studies were significantly increased. The diabetes control program and the heart disease control program were strengthened.

During the year the Monthly Activities Report for county health departments was revised to include a more comprehensive report section for chronic diseases. This will be of assistance in determining the role of county health departments in serving the chronically ill.

Future trends indicate the need for multiphasic screening programs. Physicians prefer to treat diseases before they have become serious or chronic. Many disorders can be treated more successfully if they are discovered at an early stage. One method of picking up such conditions early is by health profile screening and, as this report period ends, plans for such a program to operate within a county health department are well advanced. A Health Profile Screening Demonstration is to be carried out in a selected county health department by county health department personnel. The purpose of this program is to detect previously unknown disease, by use of screening tests known to be of value in discovery of these conditions. The objectives of the program are: to offer multiple screening tests to the public; to refer persons with positive screening tests to the physician of their choice; and to stimulate health education programs and promote routine health examinations.

Further attention needs to be given by the division in the areas of arthritis, problems of hearing, problems of aging, and other areas when adequate staff can be provided.

CANCER CONTROL PROGRAM

Cancer remained a major public health problem in Florida during 1961, with 8274 of our residents dying of this disease. In Florida, cancer is the leading cause of death in women between the ages of 35 and 54.

The Cancer Control Program continued to coordinate its work with the U. S. Public Health Service, the state and county medical societies, the American Cancer Society, Florida Division, the Florida Cancer Council, the Association of Tumor Clinic Directors and the county health departments.

Community Services

Tumor Clinics—Two new tumor clinics were formed during the year, one at Variety Children's Hospital in Miami and the other at Ft. Pierce Memorial Hospital. The new additions brought the total number of approved clinics to 24. The location of these clinics, together with the first visits and total visits to the tumor clinics during 1961 is shown in Table 36.

Tumor clinics are staffed by private physicians who serve without compensation. Ancillary personnel, such as tumor clinic secretaries, typists and tumor registry secretaries are paid by the State Board of Health, with some assistance from the American Cancer Society, Florida Division. Volunteer workers also assist in the operation of the clinics. These clinics offer consultation service to all persons when referred by a physician. Fees are paid for outpatient diagnostic laboratory services and diagnostic X-ray service rendered to the indigent and medically indigent.

If hospitalization is required for treatment or diagnosis of cancer the indigent and the medically indigent of the state are eligible to receive such services under either the Hospital Service for the Indigent or the Public Assistance Recipients programs.

TABLE 36
TUMOR CLINICS AND SERVICES
1960 - 1961

COUNTY	LOCATION OF CLINIC	FIRST EXAMINATION		TOTAL VISITS	
		1960	1961	1960	1961
Alachua	Alachua General Hospital	32	57	108	148
Alachua	University of Florida	548	1,354	1,929	4,661
Bay	Bay Memorial Hospital	70	70	606	526
Broward	Broward General Hospital	94	177	432	738
Dade	Jackson Memorial Hospital	314	406	2,566	3,788
Dade	Mt. Sinai Hospital	174	177	784	1,001
Dade	St. Francis Hospital	88	151	742	902
Dade	Variety Children's Hospital				
Duval	Duval Medical Center	468	502	4,457	4,411
Duval	St. Vincent's Hospital	100	105	1,282	1,570
Escambia	Escambia General Hospital	217	159	1,548	1,698
Hillsborough	Tampa General Hospital	213	166	3,095	2,950
Lee	Lee Memorial Hospital	37	30	136	172
Leon	Tallahassee Memorial Hospital	133	187	1,139	1,382
Manatee	Manatee Veterans Memorial Hospital	13	24	185	219
Marion	Munroe Memorial Hospital	67	84	87	120
Okaloosa	White-Wilson Clinic		45		100
Orange	Orange Memorial Hospital	164	172	1,162	2,034
Palm Beach	St. Mary's Hospital	152	222	967	1,164
Pinellas	Mound Park Hospital	316	351	1,189	1,783
Polk	Polk County Health Department	181	218	1,223	1,690
Sarasota	Sarasota Memorial Hospital	33	42	212	217
St. Lucie	Fort Pierce Memorial Hospital				
Volusia	Halifax District Hospital	26	31	135	174
	TOTAL	3,435	4,730	23,974	31,438

Cancer Registries—The State Board of Health has a responsibility for insuring that tumor clinic registries conform to the standards of operation as published in the American College of Surgeons Manual for Cancer Programs. Minimum requirements for tumor clinics embrace the assigned professional and clerical staff, cancer records, the maintenance of the tumor clinic registry and the case follow-up system. Tumor registry supplies and materials are furnished by the State Board of Health and the American Cancer Society, Florida Division.

Three-Day Hospitalization Program—Because of difficulties encountered during the year in the hospitalization for diagnosis of indigent cancer patients, the State Health Officer authorized the hospitalization of these cases for up to a three day period. Charges for this procedure were defrayed by the cancer control program. Criteria for admission under this program was medical indigency, prior screening by a tumor clinic director, and immediate notification of the cancer control program director for obligation of funds. During the approximately six weeks of its existence this program provided services for 87 patients at a total cost of \$6967.

Florida Cancer Council—The Florida Cancer Council has been most active during 1961. The Council consists of members representing the Florida Medical Association, the American College of Surgeons, the American Cancer Society, Florida Division, the Florida Association of Tumor Clinic Directors and the State Board of Health.

The Council meets twice a year to formulate policies for tumor clinics, to discuss cancer control problems, and to make recommendations relative to their improvement. A recent Council meeting placed emphasis on improvement of cancer registries, and also recommended that certain radiologists in the state attend the M. D. Anderson Clinic in Houston, Texas, for the purpose of indoctrination in the soft tissue technique of breast cancer diagnosis.

Association of Tumor Clinic Directors—The Florida Association of Tumor Clinic Directors has also demonstrated added strength and enthusiasm during the year, and under the active leadership of John Fomon, M.D., this organization is expected to play an increasingly greater role in cancer control activity. The Cancer Control Program works in close coordination with this group.

Special Projects

Duval County Cytology Project—The cancer cytology program provided a public health nurse to screen medically indigent adult females by the Papanicolaou technique. This demonstration started at the Duval County Medical Center. The project is being conducted jointly by the Duval County Health Department, the Duval Medical Center and the State Board of Health.

Women who visit the outpatient facilities of Duval Medical Center fit the general description of the group of females thought to be the most prone to have a high incidence of cervical cancer, e.g., nonwhite, southern, early marriage, frequent marriages, multiple pregnancies, poor postpartum care and low socioeconomic status. These women have not been previously screened by the Papanicolaou technique. Health information on uterine cancer has not reached this group of women.

One purpose of this project is to determine the efficiency of a registered nurse in the taking of cervical smears to be screened for uterine cancer.

The objectives of the program are as follows:

1. To demonstrate the feasibility of screening large numbers of women for cervical cancer by the Papanicolaou technique, the taking of the smears to be done by a nurse.
2. To detect cervical cancer in women served by a large outpatient clinic regardless of nature of illness bringing them there.

Community Cancer Demonstration Project for Aid to Dependent Children Recipients—This project, made possible by a grant from the USPHS, and its objectives were described in the previous year's annual report. The project consisted of three phases: initial organization, pilot program into Dade County, and extension of the project to the remaining counties to be screened.

The first phase was completed in June 1960, the second phase on December 31, 1960, and extension of the project into other counties continues to make smooth progress. In Table 37 are results to date.

While it is difficult to measure the degree to which this project has been effective in the stimulation of community interest in cervical cancer, responses to the program from lay and professional groups, and the patients, have been most gratifying.

This participation of patients for examination has fluctuated from 43.5 per cent of the eligibles in the pilot program to a high of 68.1 per cent in one county. The median participation response rate is 53.5 per cent.

Educational efforts toward increasing the participation of screenees were directed toward an analysis of the significant factors which lead some to obtain the examination, prevent others from obtaining the examination, and designing an educational program to meet these needs.

Significant factors in creating responses are—knowledge of value and limitations of letters to target population. Letters are effective in securing participation of 30-40 per cent of the eligibles, the remainder being identified as the "hard core." This last group (60-70 per cent) requires interpretation on a person to person basis to overcome such barriers as misinformation, negative and fatalistic attitude toward cervical cancer, fear of surgery, apathy, etc.

Social workers, public health nurses and persons influential to recipients are key individuals in helping identify and overcome these barriers.

It has been found that certain persons of the community designated as opinion leaders, are turned to by the ADC recipients for advice. It is well for such people as the corner groceryman, the minister, the midwife, the undertaker, the manager of the housing project, the doctor's wife, and other key persons, to know about the project in advance and to be able to give the target group factual information, and to assure the prospective patients that this is a good thing to have done. Also, community health and welfare agencies, as well as women's groups, have been found to be influential in the broad dissemination of information about the program as well as in reinforcing other means of communication.

Cervical Cytology Program for County Health Departments—With the approval of state and local medical societies, a cervical cytology program was established for certain counties not having tumor clinics, and not included in the Community Cancer Demonstration Project. This limited program was recommended for indigent postpartum cases, to be done in the facilities of the county health department. In one participating southwest county, two carcinomas in situ were discovered among only 57 women screened.

Training and Education

Workshop for Tumor Clinic Secretaries—A one-day regional workshop was held for tumor clinic secretaries and cancer registry personnel working in the tumor clinics in the northern and western parts of the state. The agenda covered tumor clinic operations, duties and services, with emphasis on improvement of cancer registry procedures. This work-

shop was presented by the State Board of Health with the American Cancer Society, Florida Division, participating. Early in 1962, a similar workshop is planned for tumor clinic employees in the remaining portion of the state.

Regional Cancer Seminars—Four of these seminars were held during April and four additional ones during May. Seminars were held at Fort Walton Beach, Quincy, Palatka, Lake City, Clearwater, Vero Beach, DeLeon Springs and Ocala. The purpose of these sessions is to bring to physicians throughout the state the latest information about particular phases of cancer, and outstanding physicians in the pertinent field are presented. This is especially programmed to benefit non-urban physicians. Attention at this year's seminars was focused on the use of cytology in combating uterine cancer. Approximately 400 physicians attended these meetings.

Other—The Monthly Tumor Clinic Report form was revised to provide more meaningful information, and to provide a simple method of proving the report.

As funds permitted, current audio-visual cancer educational material for lay and professional groups has been purchased for the Audio-Visual Library, and is loaned upon request.

Legislation and Administration

New Legislation Affecting the Cancer Program—With the assistance of other interested groups and organizations, the State Board of Health was able to obtain needed legislation in one area, while failing to do so in another important field in cancer control. The reason for the establishment of the three-day hospitalization program was eliminated when the State Legislature approved and passed House Bill 1580, an Act relating to hospital service for the indigent, and which defined the meaning of an "acutely ill" person, and specified that such term shall include a person having cancer, or suspected of having cancer, for whom hospitalization or hospital diagnostic service is recommended by the medical staff of a cancer unit or tumor clinic operating under the provisions of Section 381.361, Florida Statutes.

The Legislature failed to pass the proposed Cancer Anti-Quackery Law. However, the Cancer Control Program is already working in liaison with the Florida Medical Society, the American Cancer Society, Florida Division, the Florida Cancer Council, the Florida Association of Tumor Clinic Directors and other interested groups to present a strong stimulus for action on this at the meeting of the next Legislature.

Administration—The care of the *advanced cancer patient* is one of the great problems facing the communities of the state. Under the present regulations, little or no hospitalization can be offered these patients unless there exists a medical or surgical emergency requiring hospitalization. Equally urgent is the need for outpatient cancer treatment services. The availability of such service would result in a decrease in the number of

hospital admissions of cancer cases and a reduction in the length of hospital stay.

TABLE 37
AID TO DEPENDENT CHILDREN RECIPIENTS, NUMBER
SCREENED, ABNORMAL CYTOLOGIES AND CERVICAL
CANCER FOUND. SELECTED AREAS OF FLORIDA
JUNE 9, 1960—OCTOBER 13, 1961

COUNTY	Total ADC Recipients	Screenings		Abnormal Cytology		Cervical Cancer Found	
		Number	Per cent	Number	Per cent of Screenings	Number	Rate per 1000 screened
Dade.....	2,337	1,039	43.5	85	8.2	35	33.7
Monroe.....	100	57	57.0	3	5.3	18	41.3
Broward.....	1,001	436	43.6	37	8.5	12*	23.7
Palm Beach.....	742	506	68.2	38	7.5	2	29.9
Lee.....	110	67	60.9	7	10.4		
Sarasota.....	160	75	46.9	5	6.7		
Manatee.....	150	81	54.0	7	8.6		
Pinellas.....	987	554	56.1	31	5.6	9*	16.2
Results to Date.	5,637	2,815	49.9	213	7.6	76	27.0

*Incomplete

DIABETES CONTROL PROGRAM

Diabetes now ranks seventh in the list of causes of death by disease in the nation and in Florida it is the eighth cause of death. It is estimated that one Floridan out of every 70 is a diabetic. A recent American Diabetes Association statement indicated that one out of every four persons is a diabetic "carrier." These carriers are persons who are free of the condition themselves but who may transmit the tendency to it. In 1961, there were 760 deaths attributed to diabetes among Florida residents (preliminary figures). Florida studies have indicated that diabetes is an important cause of death in women between the ages of 55 and 64. This rate is particularly high among the nonwhite.

Diabetes control at state level is to integrate all phases and stages of attack into a coordinated program. This program is organized as follows: community service, case finding and education.

Community Service

The Florida Statutes, as revised in 1955, directs the State Board of Health to purchase and distribute insulin to the medically indigent diabetic patient. The procurement of the insulin has been through the Central Purchasing Office of the State Board of Health. An appropriation of insulin is then made to the county health departments on a formula basis which takes into consideration the factors of population and the number of indigent diabetic patients in the county. In recent years past, there was insufficient insulin money to keep pace with the medically indigent patient requirements of the counties.

The Florida Legislature in 1960 appropriated adequate funds in the amount of \$80,000 for insulin to be used for the medically indigent of Florida. A new insulin allocation was made for the counties. About 2850 medically indigent diabetic patients are now receiving insulin from this source. It is anticipated that this increase in funds for insulin will greatly motivate the casefinding program through the county health departments.

The insulin distribution program has an excellent built-in feature of a local diabetes registry which is used to good advantage for follow-up as a source of data for program evaluation and for relative casefinding programs in county health departments.

Casefinding

In casefinding, early casefinding and early and adequate treatment is advocated. Casefinding activities have been primarily in three major areas but not limited to: community diabetes screening surveys; relative testing programs and screening in the office of private physicians.

Coordinated community diabetes screening surveys are conducted on a large scale: planned surveys, city health fairs, county health fairs and screening that is conducted in county health departments and in physicians' offices. For instance about 3000 cases were screened in one county during Diabetes Week, this year. Suspicious cases found in screening centers are referred to their private physicians for follow-up. If proven to be diabetics then their names are entered in the diabetic registry and used later for relative testing programs. Screening for diabetes has the support of the Florida Medical Association.

Relative testing is more productive in casefinding and county health departments are encouraged to do this type of survey on a regular periodic basis. The two hour postprandial blood test is the method of choice as the most valid test. If the blood sugar level is set at 130 milligrams or above it will serve to identify the majority of the true positive and true negative cases screened.

With the adoption of the revised county monthly activity report which goes into effect January 1, 1962, much valuable information with reference to diabetes casefinding activity can be accumulated.

State aid to the counties also includes consultation on program planning, nutrition, laboratory support, training of personnel, seminars and workshops and limited financial assistance for medical supplies when funds are available.

Education

The third prong of the Diabetes Program is directed to the health education and information aspects of diabetics. This covers both lay and professional aspects of the disease.

Timely Topics, a monthly bulletin for the diabetic patient is sent to about 4500 persons per month. During this year the mailing list was purged by sending out a card to each name on the list. Information was

requested as follows: "Correct address? Are you a diabetic? Are you related to a diabetic?, and What subjects would you like discussed?"

A regional diabetic seminar was held in June in cooperation with the University of Florida College of Medicine, Division of Postgraduate Medicine, and the U. S. Public Health Service. This seminar was directed to public health nurses, health educators, nutritionists and directors of health departments.

The Florida Diabetes Seminar for physicians was held in October in Miami. The Florida Diabetes Association, the University of Miami Medical School and the Division of Postgraduate Medicine of the University of Florida College of Medicine cooperated in the planning and presentation. About 100 physicians attended.

The audio-visual aids have been brought up-to-date and many leaflets and bulletins on diabetes, such as "Are You Related to a Diabetic?" have been distributed.

Primary prevention has been stressed at every opportunity. This condition can be averted in some instances by control of obesity, avoidance of progeny from intermarriage of diabetics, and by the recognition of early biochemical abnormalities.

The ability of the State Board of Health Diabetes Control Program to provide consultation to the county health departments and lay groups about the state, to do training of health workers and lay and volunteer groups, research in epidemiology of diabetes, and to lend personnel to the county health departments are desirable goals.

HEART DISEASE CONTROL PROGRAM

According to mortality data, heart disease is the most serious of Florida's health problems. Disease of the entire cardiovascular system accounted for more deaths (25,346) in Florida in 1961 than all other causes combined. The death rate was 491 per 100,000 population for Cardiovascular Diseases and 461 for all other causes. Cardiovascular disease is in addition a major cause of sickness and disability.

Preliminary plans for the organization of a Policy and Coordinating Council for Cardiovascular Diseases were developed. This body will have representatives from the Florida Medical Association, Florida Heart Association, State Board of Health, Crippled Children's Commission and Vocational Rehabilitation Service. This council should draw together common interests of the various groups and result in the design of more effective programs for heart disease control.

Additional federal heart funds has made it possible to establish the position of Health Officer III as a full-time director of the heart disease control program.

Special Projects

Sodium determinations were made on all public water supplies in Florida serving over 1000 population. This was carried out because many

persons are on low sodium diets and water can be the source of considerable amounts of sodium. Of 216 determinations, 16 water systems contained over 100 milligrams per liter of sodium and are listed in Table 38. This information is to be made available to all physicians.

A Seminole Indian Health Survey was carried out in cooperation with the Diabetes Control Program, Venereal Disease Control Program and the Glades, Hendry and Broward County Health Departments. The data obtained included height, weight, blood pressure, hemoglobin, blood sugar, cholesterol and serology. Abnormal results were followed up by the respective county health department. A comparison with tests among Seminole Indians in Oklahoma is planned.

A Fluorescent Antibody Technique Training Course was held at the State Board of Health from November 27 through December 8, 1961. The course was given by the Communicable Disease Center, Atlanta, and the Bureau of Laboratories, State Board of Health. Ten individuals were given training in this new and promising diagnostic laboratory technique for the rapid detection of beta hemolytic streptococci in throat cultures from suspected cases and carriers.

Services

Rheumatic fever is a reportable disease in Florida and during 1961 268 cases were reported. The rheumatic fever medications program continued to supply prophylactic penicillin or sulfa to medically indigent

TABLE 38
AREAS RECORDING SODIUM CONTENT IN WATER
SUPPLY OVER 100 MILLIGRAMS PER LITER
FLORIDA, 1961

COUNTY	WATER SYSTEM	SODIUM CONTENT MILLIGRAMS PER LITER
Brevard.....	Cocoa	324
	Eau Gallie	312
Broward.....	Deerfield Beach	100
Dade.....	North Miami	480
DeSoto.....	Arcadia State Hospital	
	Dorr Field	156
	Carlstrom Field Plant #2.....	100
Duval.....	Jacksonville Beach	140
Lee.....	Ft. Myers Beach	300
Manatee.....	Anna Marie	408
	Palmetto	104
Okaloosa.....	Ft. Walton Beach	156
Pinellas.....	Dunedin	400
Sarasota.....	Sarasota	1440
	St. Armand's Key Water Plant	350
Volusia.....	Edgewater	150
	Port Orange	232

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rheumatic fever patients in the state. As of December 31, 1961, there were 274 persons receiving such medication for the prevention of rheumatic fever and rheumatic heart disease. The county health departments have provided follow-up service for these and many other rheumatic fever patients.

The Cardiac Work Classification Unit in Tampa continued to operate throughout the year. However, the State Board of Health withdrew support of the unit in Jacksonville due to lack of sufficient referral to justify this operation.

Education

The Eighth Annual Cardiovascular Seminar for Physicians was held in Jacksonville January 26-28, 1961. Outstanding authorities were again featured. The Seminar was co-sponsored by the Northeast Florida Heart Association, University of Florida College of Medicine, Florida Medical Association and the State Board of Health.

New and excellent material on cardiovascular disease is available to lay and professional groups through the Audio-Visual Library.

PREVENTION OF BLINDNESS PROGRAM

During 1961, a program plan for the Prevention of Blindness in Florida was written. This plan calls for a policy committee which is known as the Florida Coordinating Council for the Prevention of Blindness, consisting of members from the following official and voluntary agencies: Florida Society of Ophthalmology and Otolaryngology; Florida Medical Association; The Florida Council for the Blind; State Board of Health; State Department of Public Welfare; Florida Society for Prevention of Blindness, and Florida Lions Foundation for the Blind, Inc.

In Florida the major causes of blindness are cataracts, glaucoma and diabetic retinitis. The cause of chronic simple glaucoma is presently unknown. It is not possible to prevent the disease from developing; however, the early diagnosis and institution of prompt and persistent therapy prevents the development of blindness in most cases. The purpose of this program is: (1) to establish screening centers in the state which will lead to the finding of persons with glaucoma (or other conditions affecting the sight), in the early stages so that they may be referred to ophthalmologists in the area for diagnostic confirmation and definitive treatment; (2) to encourage professional education on appropriate screening methods and techniques of ophthalmological examinations for interns, residents, general practitioners and internists of the state so that they can then institute such screening methods as a routine procedure in their private practices.

The procedure at the Prevention of Blindness Screening Centers will consist of registration and brief history, visual acuity test, tonometry test, a limited report to the patient, and entry of findings in the glaucoma registry.

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Personnel of the county health department concerned will seek to insure physician follow-up of patients. The establishment of the first such screening center is now being planned at Lakeland General Hospital, and will be set up early in 1962.

DIVISION OF HOSPITALS AND NURSING HOMES

GEORGE W. HOOVER, M.D.
Acting Director

This division, whose principal duties are regulatory, is active in three areas; the hospital licensure and related activities, nursing home licensure and related activities, and hospital service for the indigent and its related activities.

The hospital licensure program is designed to carry out the intent of the legislature to develop, establish and enforce standards "for the care and treatment of individuals in hospitals" and "for the construction, maintenance and operation of hospitals, which, in the light of advancing knowledge, will promote safe and adequate treatment of such individuals in hospitals." This is done through the establishment of rules and regulations, surveying existing hospitals, consultation with those developing new facilities, review of plans of new hospitals, and of additions, alterations and renovations of existing hospitals. A license is issued annually to hospitals maintaining the required standards.

The nursing home licensure program is designed to carry out the intention of the legislature as expressed in the nursing home licensing law; to provide for the development, establishment and enforcement of standards for "the health, care and humane treatment of persons in nursing homes," and for "construction, maintenance, and operation of such institutions which in the light of existing knowledge will insure safe and adequate care, treatment and health of persons in such homes." Program responsibility is shared with county health officers and their staffs and local authorities responsible for fire, electrical, building and plumbing inspection and zoning. Rules and regulations insure minimum standards. To raise even higher the level of care and treatment of these patients, the division offers a wide variety of training and educational activities and consultation service to local health officers and their staffs, developers, administrators and personnel of the nursing homes.

Within the area of the hospital service for the indigent there are contained three distinct activities. The first of these is financed by county funds, augmented by state funds; the second by state and federal funds; the third is financed entirely by federal funds. The state-county program provides hospitalization for the medically indigent. The federal-state program, the administration of which is shared with the State Department of Public Welfare, provides hospitalization for the indigent who are public assistance recipients. A program funded entirely from federal sources provides payments for hospital and medical services rendered to Indians living on the state reservations.

HOSPITAL LICENSING PROGRAM

During 1961 eight new hospital facilities with 746 beds and 86 bassinets opened their doors. The number of unlicensed hospitals decreased by 14, or approximately 56 per cent. Beds in unlicensed hospitals decreased 533, or approximately 65 per cent during the year.

TABLE 39
HOSPITAL EVALUATION STATISTICS
1959 - 1961

	Calendar Year		
	1961	1960	1959
Hospitals subject to licensure program,			
January 1	173	171	174
Hospital accessions during year	8	3	1
Hospitals ceasing operations during year.....	3	1	4
Hospitals subject to licensure program,			
December 31	178	173	171
Licensed hospitals on December 31	166	147	146
Unlicensed hospitals on December 31	12	26	25
Licensed hospital beds, December 31.....	17,971	17,311†	17,186†
Unlicensed hospital beds, December 31	282	815	*
Licensed hospital bassinets, December 31	2,431	2,366	2,376
Unlicensed hospital bassinets, December 31	45	125	*
Hospital plans reviewed during year.....	87	75	86
Hospital surveys for licensure	106	92	102

* Unavailable

† Estimated

There is a trend towards concentration of beds in larger institutions. The increased complexity involved in the plans review process has increased the number of hours per review disproportionately when considered with the number of reviews made in previous years.

As noted above, 106 hospital surveys were made by the hospital consultants of this division in 1961 compared with 92 in 1960, an increase of approximately 14 per cent.

Substantial increases in workload involved in plans reviews and hospital surveys were accomplished notwithstanding a 120 per cent increase in the number of nursing home plans which were reviewed. The division is still unable to survey every hospital in the state, subject to licensure, once yearly. Further, it is not yet possible to survey renovations, alterations and new construction programs upon completion with present staff.

Plans reviews are still delayed in many instances beyond a desirable time interval, but these delays are occasioned more frequently by the uncontrollable aspects of workload inequality, i.e., unpredictable peaks in hospital construction.

The division provided educational material, consultative services and staff assistance to hospital administrators, nursing home administrators, architects and builders.

During the year, the division completed the preliminary work on the installation of a ready-reference hospital file system which will provide easy accessibility and automatic up-dating.

The state's hospital licensing program has continued to complement the voluntary accrediting programs of the Joint Commission on Accreditation of Hospitals and the accrediting bodies of the American Osteopathic Association.

The hospital licensure program is served by the Advisory Hospital Council. Its members are appointed by the Governor and in 1961 included the State Health Officer, who serves as chairman ex officio, A. W. Forehand, Tallahassee; W. W. Richardson, M.D., Graceville; Raymond King, M.D., Jacksonville; Robert Eleazer, Jacksonville; Hon. James H. Sweeny, Jr., DeLand; John Wymer, West Palm Beach.

This Council met in Jacksonville on March 21. Conditions prevailing in 10 substandard hospitals were discussed with the Council. The Council expressed itself as favoring the use of injunctive relief in place of monetary fines in the case of hospitals which continue to operate in violation of rules, regulations and standards for licensing of hospitals. A list of 12 proposed revisions of amendments to the current rules, regulations and standards for licensing of hospitals was submitted to the Council. The Council in turn referred this matter to its subcommittee on rules, regulations and standards for further study. The Council discussed a letter asking whether or not a dental hospital could be licensed under the hospital regulations; this matter was also referred for further study to the subcommittee on rules and regulations.

This subcommittee met in Jacksonville on April 28. Staff was requested to obtain additional information from other states about licensure of dental hospitals. The subcommittee recommended the adoption of a certificate for provisional licensure of hospitals. Seventeen changes and/or additions to the rules and regulations governing the licensure of hospitals were considered by the subcommittee which recommended these be approved. These changes were approved by each member of the Council by letter in November. These rules will be referred to the State Health Officer for consideration by the Board of Health.

NURSING HOME PROGRAM

The nursing home program continued to grow in 1961. Services to county health departments increased and there was noted a progressive awareness by the nursing home industry that better nursing care of people is founded, to a definite degree, in adherence to public health and safety standards. There was progress also due to greater participation and contributions of county health departments in their surveillance and enforcement work.

There are 337 licensed facilities in 40 counties including 248 nursing homes, 82 homes for the aged and seven homes for special services as indicated in Table 41. County health department personnel seek to insure as high a quality of service as possible by frequent visits to nursing homes. In 1961, 5513 visits were made to nursing homes and homes for the aged which were licensed, unlicensed or in the process of being licensed.

There has been a 120 per cent increase in the number of project plans submitted through county health departments for review and approval.

In response to many inquiries received during the year from church affiliated groups for information concerning construction and financing the cost of construction of nursing homes, a part-time position was created in the division and staffed by a person highly experienced in the administrative aspects of church affairs. Currently this person is working in two rural areas where the need and interest in the construction of such nursing homes is paramount.

A study of a sample of licensed nursing homes carried out in 1961 indicated that nursing home beds for persons who can pay less than \$200 a month are in short supply in urban areas. Approximately one-half of nursing homes and homes for the aged patients were supported out of private resources, one-fourth of the patients showed support from welfare payments only. The remaining one-fourth showed support from both welfare and private resources. The average charge was \$196 per month in nursing homes and \$117 per month in homes for the aged. Nursing home operators gave \$192 per month as the minimum cost for providing adequate care for welfare patients.

The 1961 State Legislature adopted several amendments to the nursing home statutory law which will strengthen legal requirements and reduce illegal operations. These amendments provide for an annual nursing home license, licensing homes which hold themselves out to the public to provide nursing and custodial care for less than three persons and also controls against misleading advertising. In February a workshop was held for nursing home administrators in order to obtain their suggestions and recommendations for revised regulations. The drafting of revised regulations is in progress.

The program's educational activities were concentrated in the planning and conducting of short courses for nursing home administrators at Florida State University and Florida Agricultural and Mechanical University. These courses were undertaken through the joint sponsorship of the State Board of Health, Florida Nursing Home Association, State Department of Public Welfare, State Board of Nursing and the state universities. Staff members participated in specialized local workshops for nursing home operators in the areas of administration and nursing care. In order to make educational activities and programs more meaningful and practical at the local level and to meet "grass-roots" needs, a meeting was held in December with representatives of the foregoing organizations and institutions which included representation from the General Ex-

tension Division of the University of Florida. The purpose of this conference was to consider more intensive programs to meet educational needs and plan educational activities related to the nursing home field. It was concluded that the General Extension Division in cooperation with the State Board of Health and the Florida Nursing Home Association could provide more effective planning and assume broader responsibilities for the organization and conduct of annual short courses and continuing regional educational programs both for nursing home personnel and public health staffs.

Technical and advisory memoranda were circulated among county health departments to assist them in their nursing home licensure activities. One was related to fire and evacuation plans in case of emergency. In this connection, the office of the State Fire Marshal proffered advisory services for the inspection of homes located in unincorporated areas and where there are no local fire ordinances or an organized fire department.

The matter of staffing requirements for nurse personnel in nursing homes is currently being restudied from information collected during 1961 by a team of nurses experienced in estimating the nursing care needs of patients. Three hundred and ninety-four patients selected by approved statistical techniques were observed to determine the patients' nursing care needs. Collection of the data has been completed and is in the process of tabulation at this time. One member of the staff is devoting full-time to this special study.

Conferences were held with the State Hotel and Restaurant Commission for the purpose of discussing problems resulting from persons requiring nursing care being accommodated in roominghouses. A continuing working relationship was maintained with the State Department of Public Welfare inasmuch as its financial arrangements for public assistance recipients in nursing homes is contingent upon licensure. Meetings were held frequently with representatives of the Florida Nursing Home Association in the interest of advancing the program's objects, resolving problems of the industry and promoting mutual educational aims. The USPHS provided regular consultative services in the areas of program development, research and education. The division was represented on an advisory committee of the Communicable Disease Center, Atlanta, for the purpose of developing courses on the environmental health aspects of nursing homes. The program's interests also were represented in the Florida Joint Council to Improve the Health Care of the Aged, the Florida Medical Association, Florida Nurses Association, The Florida Dietetic Association and the Medical Care Section of the Florida Public Health Association. The State Board of Nursing provided assistance to the program at state and county levels by assuring compliance of nursing personnel with licensure requirements and in investigations of possible malpractice. Liaison was carried on with the Florida Development Commission in the establishment of criteria for the administration of Hill-Burton funds for nursing home construction and by referrals for certification of need for nursing homes in various localities throughout

the state. Routine certification of the existence and enforcement of nursing home laws and regulations were provided the Federal Housing Administration by the division for its nursing home mortgage insurance projects.

A nutritionist has been added to the staff but assigned to the Division of Nutrition to assist county health departments and nursing home administrators in the development of adequate nutrition programs and dietary services for nursing homes. The need for this service has become urgent in recent years with the rapidly increasing numbers of nursing and old age homes which are operated mainly by persons with little or no training in feeding groups of people. In addition to maintaining adequate normal nutrition, the person responsible for feeding this age group needs some understanding of the therapeutic diet. (For a more detailed discussion, see report of Division of Nutrition elsewhere in this volume.)

HOSPITAL SERVICE FOR THE INDIGENT PROGRAM

This program was established by an act of the 1955 Legislature and went into effect in 1956. During the six years of its operation the program has continued to expand to meet the hospitalization needs of the indigent and medically indigent who are acutely ill or injured, who can be helped markedly by treatment in a hospital, and who are clearly unable to meet the cost of hospitalization from their own resources or those upon whom they are legally dependent. The scope of the activities of the hospital service for the medically indigent and of the hospitalization care for public assistance recipients during 1961 is reflected in Table 40.

For the biennium 1961-63 the Legislature appropriated \$2,050,000 to the State Board of Health for use in matching county funds for the hospitalization of the medically indigent persons of the state (state-county program of hospitalization). These state matching funds when coupled with the required annual county appropriation of 50 cents per capita should provide for the biennium approximately seven million dollars for the hospitalization of the medically indigent.

The Legislative Appropriation Act of 1961 authorized the State Budget Commission to transfer a proportionate amount of this appropriation that applies to the aged medically indigent of Florida to the State Department of Public Welfare to be used for matching federal funds in providing a state-federal financed program of hospitalization for the medically indigent who are 65 years of age or over. This was conditional upon congressional amendments to present laws removing non-residence requirements in matching funds for such a program. Should it be possible to implement the proviso program, an expanded program of hospitalization for the medically indigent could be anticipated.

For the biennium 1961-63, the Legislature also appropriated a total of \$2,970,000 to the State Department of Public Welfare for use in matching federal funds for the hospitalization of public assistance recipients (state-federal program). This program is administered by the State Board of Health under the terms of an agreement with the State Department of Public Welfare. It is anticipated that the appropriation

for the hospitalization of public assistance recipients should earn between eight and nine million dollars of federal funds, thus making available a total of between 11 and 12 million dollars for this program during the biennium 1961-63.

The 1961 Session of the State Legislature also enacted House Bill No. 1580 which included several changes in the Hospital Service for the Indigent Law. One of the more significant changes made by the enactment of House Bill 1580 was the inclusion of a new definition of an "acutely ill or injured person." This phrase was re-defined to mean "a person with an urgent illness, who may respond to short-term remedial treatment, the postponement of which may constitute a hazard to the patient's life or health, and shall include a person having cancer, or suspected of having cancer, for whom hospitalization or hospital diagnostic service is recommended by the medical staff of a cancer unit or tumor clinic operating under the provisions of Section 381.361, Florida Statutes, and shall include a person suffering from mental illness who is admitted by a psychiatrist to an approved psychiatric facility of a participating hospital for intensive short-term psychiatric treatment."

During the first six months of 1961 the members of the Hospital Advisory Committee were: H. Phillip Hampton, M.D., Chairman; Edward H. Jelks, M.D.; J. A. Long, Jr., M.D.; Messrs. Frank Kelly and Arthur Bailey. The 1961 Legislature amended Chapter 401, Florida Statutes, to provide a Hospital Advisory Committee of seven members including two physicians, two county commissioners, two hospital administrators and one member representing the general public. The members of this enlarged Committee are: H. Phillip Hampton, M.D., Chairman, Tampa; Edward H. Jelks, M.D., Jacksonville; Fred Gill, Zephyrhills; Walter Weiss, Miami; Frank Kelly, Miami; Joseph R. McAloon, Hollywood; and Ben P. Wilson, Ocala.

The Committee met in January in Jacksonville and recommended changes in Chapter 401, Florida Statutes, to clarify eligibility for hospitalization of cancer cases and for home nursing care; recommended a change in the definition of the words "acutely ill" in Chapter 401; formulated recommendations to present to the Board of Health concerning a budget request and a program of indigent medical care for the next biennium.

In a meeting in Jacksonville in August, the Committee recommended continuation of the present policy that county health officers be delegated responsibility to authorize up to a maximum of 30 days hospitalization; recommended that the Board of Health seek an opinion from the Board's attorney on the question of the inauguration of the Home Nursing Program as provided in Section 401.012; considered the agreement on hospital care for public assistance recipients between the State Department of Public Welfare and the State Board of Health (it was concluded that no change in the agreement was necessary); discussed the rising rate of per diem in Florida hospitals and recommended that staff continue the practice of negotiating on rates where necessary. It recommended that all requests for authorization of hospitalization exceeding 30

days under the state-county program be investigated by the county health officer.

As of December 31, 1961, 99 of the 160 participating hospitals had established per diem rates at an average of \$27.11. This represents an increase of \$1.16 as compared to December 31, 1960. The remaining 61 hospitals were reimbursed on the basis of actual billing not to exceed \$15.00 per day.

By contract with the USPHS the State Board of Health administers a program which provides hospitalization and medical care for Reservation Indians. This program is financed with federal funds in the amount of \$25,000 per year. Seminole Indians living in recognized Indian communities in Broward, Glades and Hendry Counties are eligible for the benefits of this special program provided they are not eligible for the same health benefits under other existing state and federal health and welfare programs. The Reservation Indian program includes inpatient and outpatient hospital services not available under the medically indigent and public assistance recipient programs of hospitalization, physician services, prosthetic appliances, eyeglasses and transportation to hospitals when medical conditions of beneficiaries so indicate.

On July 1, 1960, the Hospital Service for the Indigent Program was transferred from the Bureau of Special Health Services to the Administration Office of the State Board of Health for a special evaluation study. It remained a part of the Administration Office to July 1, 1961, at which time it was returned to the Division of Hospitals and Nursing Homes.

TABLE 40
HOSPITALIZATION PROGRAMS
APPLICATIONS PROCESSED AND APPROVED FOR PAYMENT
FROM JANUARY 1, 1961 TO DECEMBER 31, 1961

	Public Assistance Recipients			Hospital Service for the Indigent		
	No. of Admissions	Days Hospitalized	Total Payments State & Federal	No. of Admissions	Days Hospitalized	Total Payments State & Local
Total, STATE	15,531	137,706	\$3,315,790.04	17,261	163,874	\$4,100,926.56
Alachua	264	2,535	67,246.66	301	2,424	65,259.50
Baker	90	736	18,106.20	26	173	4,421.74
Bay	144	1,244	32,136.93	144	974	27,419.99
Bradford	110	847	18,437.61	19	158	3,856.90
Brevard	160	1,317	34,919.95	381	2,964	76,724.13
Broward	467	4,285	96,538.49	993	9,823	225,873.68
Calhoun	111	799	13,655.81	10	93	2,141.90
Charlotte	37	233	5,690.62	18	293	6,969.02
Citrus	62	684	14,223.75	25	240	6,000.03
Clay	76	527	12,724.50	35	265	5,742.54
Collier	44	302	8,502.23	57	421	11,489.49
Columbia	325	2,642	47,308.23	88	659	11,518.72
Dade	1,753	20,119	589,233.63	2,700	32,126	905,599.55
DeSoto	48	313	5,011.20	26	242	4,334.33
Dixie	29	275	7,453.64	13	85	2,292.66
Duval	1,049	9,506	210,151.42	1,964	15,806	320,847.21
Escambia	752	6,793	183,690.48	545	5,749	167,128.93
Flagler	15	144	2,317.00	20	226	4,037.69
Franklin	106	577	11,398.23	53	312	5,604.29
Gadsden	196	1,806	40,031.71			
Gilchrist	27	252	6,443.71	7	54	1,321.70
Glades	14	137	2,564.75	7	127	2,141.89
Gulf	53	356	5,626.09			
Hamilton	133	921	15,712.21	27	264	5,371.80
Hardee	50	400	6,731.57	10	83	1,705.80
Hendry	33	294	6,075.84	53	367	4,291.39
Hernando	70	559	8,852.24	22	233	5,158.89
Highlands	64	559	14,644.17	80	978	22,785.60
Hillsborough	1,051	9,740	202,872.80	2,022	16,500	455,431.68
Holmes	283	1,891	42,601.32			
Indian River	109	765	20,621.87	58	470	12,529.90
Jackson	343	2,839	63,399.38	90	653	15,709.76
Jefferson	45	373	9,993.24	21	185	5,083.27
Lafayette	58	439	8,145.06	12	91	2,348.66
Lake	179	1,455	37,279.73	214	1,577	39,778.11
Lee	132	1,253	34,735.76			
Leon	316	2,720	69,598.08	550	2,064	54,661.60
Levy	144	1,386	29,604.68	25	217	5,578.62
Liberty	68	527	10,883.33	7	41	785.99
Madison	175	1,418	35,910.78	41	301	7,814.01
Manatee	215	1,970	49,521.24	161	1,990	50,629.65
Marion	356	3,211	84,687.86	124	1,461	40,082.18
Martin	57	493	13,891.69	38	315	8,490.73
Monroe	115	1,305	34,602.65	102	758	21,443.14
Nassau	78	630	12,110.23	64	502	9,237.68
Okaloosa	320	2,024	47,085.93	185	1,027	25,334.05
Okeechobee	39	306	6,358.06	24	168	3,537.75
Orange	540	5,155	123,822.87	887	10,034	248,314.01
Osceola	105	700	11,256.91	59	537	10,768.96
Palm Beach	367	3,221	89,956.36	1,087	12,176	342,656.03
Pasco	91	656	11,827.22	118	725	15,133.59
Pinellas	736	6,661	160,427.50	1,010	11,059	271,205.50
Polk	424	3,837	80,789.10	1,584	12,115	204,678.15
Putnam	310	2,174	51,169.48	134	872	21,316.33
St. Johns	123	1,064	27,561.77	88	699	18,292.04
St. Lucie	140	1,303	37,223.89	115	1,474	42,420.85
Santa Rosa	289	2,349	54,454.65	80	819	20,974.13
Sarasota	162	1,275	36,987.10	245	2,534	72,668.08
Seminole	187	1,764	43,697.17	108	1,143	27,392.49
Sumter	78	694	16,759.08	42	332	7,543.69
Suwannee	255	1,996	34,295.97	50	347	6,704.02
Taylor	115	996	26,489.09	18	178	4,997.20
Union	127	1,100	17,516.53	12	74	1,505.45
Volusia	457	4,393	109,736.56	496	4,826	115,819.76
Wakulla	59	405	9,539.23	2	4	77.11
Walton	402	2,436	47,112.92	61	439	9,350.35
Washington	193	1,502	26,434.53			

TABLE 41
HOMES LICENSED UNDER FLORIDA NURSING HOME LAW
BY COUNTIES—1961

COUNTY	TYPE OF FACILITIES				BED CAPACITY			
	Nursing Homes	Homes for the Aged	Homes for Spec. Serv.	Total Number	Nursing Homes	Homes for the Aged	Homes for Spec. Serv.	Total Number
Alachua.....	3	1		4	86	11		97
Bay.....	1	1		2	85	10		95
Bradford.....	1			1	15			15
Brevard.....	4	1		5	83	42		125
Broward.....	12		2	14	360		39	399
Clay.....	1			1	18			18
Columbia.....	1			1	12			12
Dade.....	30	13		43	1,979	374		2,353
Duval.....	23	10		33	656	138		794
Escambia.....	6	2		8	111	27		138
Hamilton.....	1			1	8			8
Hardee.....		1		1		24		24
Highlands.....	2			2	36			36
Hillsborough.....	25	4	3	32	931	107	61	1,099
Holmes.....	1	1		2	36	10		46
Indian River.....	2			2	60			60
Jefferson.....	1			1	36			36
Lake.....	5	3		8	106	29		135
Lee.....	3			3	118			118
Leon.....	2			2	47			47
Levy.....	2			2	23			23
Manatee.....	4	4		8	145	20		165
Marion.....	2			2	38			38
Martin.....		1		1		8		8
Okeechobee.....		1		1		10		10
Orange.....	12			13	321	5		326
Osceola.....	3	4		7	64	52		116
Palm Beach.....	12	5		17	424	179		603
Pasco.....	2	3		5	27	55		82
Pinellas.....	33	3		36	1,181	41		1,222
Polk.....	15	7		22	329	176		505
Putnam.....	3	1		4	60	10		70
St. Johns.....	2	3		5	39	55		94
St. Lucie.....	2	3		5	29	78		107
Sarasota.....	8			8	334			334
Seminole.....	5	4		9	74	85		159
Sumter.....	1			1	25			25
Suwannee.....	1			1	16			16
Volusia.....	17	3	2	22	458	41	82	581
Washington.....		1		1		13		13
SUBTOTALS..	248	82	7	337	8,370	1,696	182	10,248
CEASED OPERATION IN 1961								
Broward.....	2			2	56			56
Dade.....	3			3	15			15
Duval.....	4			4	93			93
Hillsborough.....	8			8	180			180
Marion.....	1			1	24			24
Palm Beach.....	2			2	16			16
Pinellas.....	1			1	25			25
St. Johns.....	1			1	82			82
Volusia.....	2			2	86			86
SUBTOTALS..	24			24	527			527
TOTALS.....	224	82	7	313	7,843	1,696	182	9,721

BUREAU OF SANITARY ENGINEERING

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DAVID B. LEE, M.S., Eng.
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Water quality management involving water supply and waste water considerations continued to receive the major work effort throughout the state. The ever-increasing air pollution control program was broadened within the physical and administrative capabilities of the bureau. There was continued evidence of the expanding industrial complex which with population growth has caused various political subdivisions of the state to become aware of the urgent need for long-range zoning programs. Subsequent sections of this report will delineate the overall bureau activities in these various environmental factors.

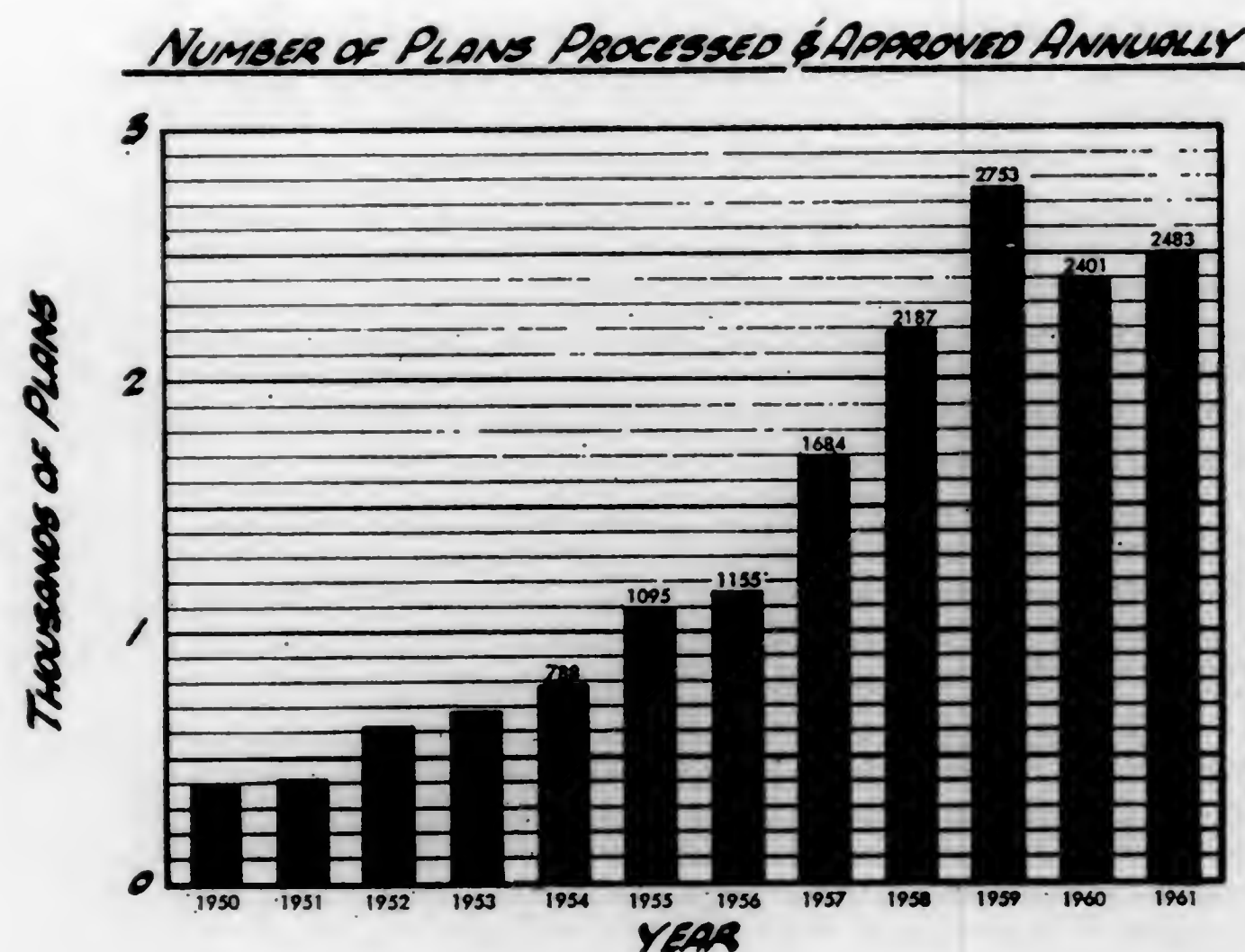
During 1961 one engineer was added to the staff. This individual plus a U.S. Public Health Service engineer were assigned to the air pollution control program. Approximately 45 per cent of the professional staff is permanently assigned to field locations throughout the state. The loss of key personnel, coupled with recruitment difficulties, continued to plague the bureau and jeopardize the capability to meet increasing demands of a growing state.

During the year, the professional staff was temporarily reduced while two engineers took graduate work. The program of graduate study for professional staff members has materially strengthened the technical capability of the bureau with 40 per cent of the staff holding advanced degrees in either engineering, the sciences or public health.

Since the total capability of the health agency in the area of sanitary engineering responsibilities includes the professional staff assigned in county health departments, losses in this area during the year are most regrettable. Brevard County, which only the previous year had employed a sanitary engineer, in 1961 discontinued the services of such employee. Sarasota County, which likewise had employed an engineer, determined to discontinue the position in 1961. Volusia County lost the services of its sanitary engineer by resignation and as the year closed no replacement had been obtained. Whereas in the previous year 10 counties were served by sanitary engineering staff, a temporary backward step was taken even though the need for such services increases proportionately with population. The growth of both Brevard and Sarasota Counties, as well as many other large counties in the state, with their greater environmental health needs requires that greater efforts be made to reactivate or develop sanitary engineering capability for such counties.

The third annual engineering staff conference was held at the beginning of the year with attendance and participation by all county, regional and other field staff personnel. Out of the meeting this year there was developed an ad hoc committee to study the question of stream standards

FIGURE 3



with the charge that they formulate appropriate recommendations for possible application of standards for the waterways of Florida.

Of major significance in the conduct of the activities of the bureau was the physical move the latter part of June into modern, well-lighted, soundproofed and air-conditioned quarters. For years the staff has been poorly housed in cramped quarters to the point where work efficiency was seriously affected. The change in surroundings together with the adequacy of space has meant improved personnel and work attitudes and better administrative control of filing and storage of supplies.

The stream sanitation program received major emphasis in 1961. Numerous surveys were undertaken in various areas of the state generally in relation to specific situations rather than to surveillance of major waterways.

The collection of specific water resource data under a contract between the State Board of Health and the U. S. Study Commission, Southeast River Basins, was completed and all information submitted to the study commission.

Evidence of the public awareness in the field of water quality management continues to accumulate in the form of support at local level for programs designed to control or eliminate pollution, as well as in the form of correspondence voicing complaint against those who offend the waterways. Surveillance of the environment and vigilance in recognizing potential hazards, that they might be avoided through proper planning and development, continues to be the major concerted effort of the staff.

SUBDIVISION PLANNING

For many years the bureau has recognized the need for adequate planning, especially in the field of public health utilities for subdivision and large scale community housing developments in order to attain a proper public health environment. Restriction on the continued wide and indiscriminate use of the septic tank system for individual sewage disposal, and private wells for individual home water supplies, has been recognized nationally since adverse health effects in many areas have occurred from this practice. The subdivision planning program is directed toward recommendations and assistance to housing and community developments, subdivision developers, lot sales enterprises and to county health departments. Consultation services, review of subdivision analyses, recommendations for adequate public health utilities and supervision over the environmental health aspects of subdivision planning and home construction is provided. Liaison and cooperative activities are carried on with the personnel of the federal insurance mortgage agencies. The Federal Housing Administration and the Veterans Administration depend upon health department approval and responsibility for the satisfactory installation and operation of individual sewage disposal and water supply systems. The bureau maintains advisory and technical engineering services to the county health departments in determining the suitability of these individual utilities.

By policy, the activities of the personnel of the bureau are directed toward promotion of quality public water supplies and public sewerage works. Normally, recommendations are made for central or community public utility systems and oppose any proposed wide use of individual systems. This policy, considered in keeping with the needs of population trends toward urbanization, has led to the construction of desirable public utilities in many newly created communities and mass housing projects. Principles of urban planning as advocated through the activities of the program have directly or indirectly led to the attainment of higher level environmental sanitation throughout the state than would have resulted otherwise.

Review of new subdivision developments referred to the bureau by the county health departments were less than in previous years. This was due partly to economic conditions with fewer homes constructed, but mostly to the increasing trend of the county health departments reviewing all new subdivisions within their area of jurisdiction and assuming the responsibility of approval or disapproval of proposed individual utility services. Extensions to and enlargement of existing community utilities to area service have also been influencing factors in the reduction of private water and sewerage installations.

The number of subdivisions with analysis data reviewed by the bureau for the various county health departments during 1961 totaled 40, and involved 3431 lots. For 2221 of these homesites it was recommended that public utilities consisting of extension of existing municipal or corporate owned public water supply systems and similar sewerage systems be made, and where available systems did not exist, it was recommended that community or subdivision-owned public water supply and sewerage facilities be provided. The proposed use of septic tank installations was concurred in for 1152 of the lots. However, only in a very limited number of cases was the use of private wells involved. Proposed use of private wells as individual water supply to each home in subdivision developments is no longer a problem and the public water system is almost invariably voluntarily provided.

The Veterans Administration continues by policy to require the favorable opinion of the State Board of Health for individual sewage disposal and water supply when used, on all properties receiving a VA guaranteed mortgage. This procedure involved clearance of 361 VA final inspection reports during the year. Use of a septic tank system was concurred with for all of these and also the use of a private water supply was included in 102 of these cases. Concurrence with private utilities in this large number of cases does not reflect adversely on basic sanitary standards as most VA properties are located in rural areas and widely dispersed rather than in concentrated areas of population.

The Federal Housing Administration likewise requested State Board of Health favorable opinion on 59 federal insured home properties using individual sewage disposal and individual water supply facilities. These were reviewed and processed as satisfactory for 57 cases.

Many conferences were held with developers, builders, consulting engineers and with housing, zoning and public officials at local, state and federal levels on the various elements of adequate planning. These conferences have been most productive in emphasizing present and future needs.

SHELLFISH AND CRUSTACEA CONTROL

The activities in shellfish sanitation are due to the unique problems associated with oyster and clams which require a different approach and emphasis on sanitary controls than that used for any other food product. The relationship between sewage polluted shellfish and disease, such as typhoid and infectious hepatitis, is the basis for the assumption of control responsibilities by the State Board of Health.

To comply adequately with these responsibilities requires concerted activities, interest and cooperation with the State Board of Health of county health departments in those counties wherein the shellfish industry operates.

Administrative and policy procedures considered necessary to insure the marketing of safe and sanitary shellfish products were stated in three memoranda issued to the county health departments and to the industry during early 1961 and prior to the opening of the normal season.

Placing emphasis on the study of areas to be opened rather than on a study of areas which should be kept closed resulted in the collection and examination of approximately 2000 water samples from various areas located in nine counties. New and specifically delineated areas were declared "open" in Nassau, Lee, Sarasota, Charlotte, Citrus, Levy and Dixie Counties. In addition, 131 water samples were collected and analyzed from the Apalachicola Bay area.

Greatly increased interest and activity in the shellfish industry, particularly by out-of-state persons confronted with scarcity of these products in other states, enhances the magnitude of the growing area survey work required by the bureau staff, laboratories and the affected county health departments. Much has been done by other state agencies to promote and advertise to industry the advantages and opportunities of optimum Florida waters for the rapid growing of oysters in abundance.

Sanitary control of processing houses through periodic inspections was emphasized during the year. A satisfactory overall percentage rating from the annual USPHS evaluation survey was received, with all plants inspected passing the required 80 per cent minimum grade.

As in previous years the production of oysters, the number of houses and control activities were predominantly in the Apalachicola area. A total of 114 shellfish houses for oysters, clams and scallops, including processing and shellstock shipments only, were permitted. Forty of these were located in the Apalachicola Bay in Franklin County with an additional 32 located in the counties of west Florida. The season experienced a pronounced increase in production, sales and number of new plants constructed and existing plants remodeled or enlarged.

Eight new oyster shucking houses were constructed and 14 existing houses extensively remodeled during the year. An additional three plants were under construction at the end of the year. Sales records for the oyster industry in the Apalachicola area reveal 245,942 gallons for the 10 months period of 1961, compared to 157,485 gallons for the same period of 1960.

Activities in, and use of the marine laboratory in Apalachicola, greatly increased and proved beneficial to the program.

Crabmeat production for the year was far less than in the previous year. Twenty-two plants were permitted, compared to 37 during 1960. However, actual operation was spasmodic and limited. This was mainly due to the enactment of the federal minimum wage act which did not exempt crabmeat pickers. The industry felt unable to meet the economic conditions. Structural conditions of crabmeat plants have improved considerably and are relatively good. The public health problems associated with crustacea are relatively minor compared to oyster and clam products, and sanitation can be achieved by application of well known sanitation practices.

The majority of the activities of statewide control involved in the program is directed to oyster production. The principal problem is that of pollution. With a constantly increasing population and increase of population density on and around the water areas, and the increase of sewage treatment plants using the rivers, streams, bays and bayous as receiving waters for the partially treated wastes, a constant increase of potentially dangerous pollution effect on oyster growing areas can be anticipated.

The maintenance of a patrolling system of polluted waters to prevent illegal harvesting of oysters and clams is recognized as being inadequate and ineffective. The magnitude and cost of such an activity has

TABLE 42
SUMMARY OF ACTIVITIES—SHELLFISH
AND CRUSTACEA PLANTS—1961

Description	Operating Certificates Issued	State Visitations Made	New Plants Constructed	Plants Remodeled
Oyster shucking and packing.....	114	345	9	14
Oyster shellstock only.....	28	15		
Scallop shucking.....	21	11		
Clam shucking.....	9			
Crabmeat processing.....	22	130	1	
Repacker.....	11			
Reshipper.....				
RELATED SHELLFISH AND CRUSTACEA ACTIVITIES				
Oyster growing area waters samples bacteriologically tested.....				2,098
Oyster meat samples bacteriologically tested.....				28
Crabmeat samples bacteriologically tested.....				13
Plant water samples bacteriologically tested.....				106

so far appeared insurmountable. This is a serious and critical element definitely needed in the program. An effective law or regulation for prevention is lacking. Progress is believed to have been made toward this need through interagency conferences.

Close liaison and cooperation was continued with the regional office of USPHS in the cooperative certification plan. The certification of crabmeat plants to the Maryland State Health Department and New York City Health Department was continued. Increased effectiveness of cooperation and controls was realized through visits and technical assistance to all county health departments in which the shellfish and crustacea industry was active.

Table 42 summarizes the pertinent items of the activities of the bureau personnel in the program. The many and detailed activities of valuable assistance received from the various county health departments are not reflected in the table.

BEDDING ACT ADMINISTRATION

The functions and responsibilities of this program are based on adequate administration, inspections and enforcement throughout the state in the control of the manufacture, renovation and sale of items of bedding used or intended for sleeping purposes and all processed filling materials as used therein, as regulated by the Bedding Inspection Act.

Personnel engaged in these activities consists of a secretary, clerk, supervisor of inspectors, five regional inspectors and a chemist. In addition, the program is administered by an engineer part-time, with part-time assistance from other staff secretarial personnel.

Progressive activity by the industry was experienced during the year; however, there was a noticeable decrease in sales over the previous year due probably to general economic conditions. There was also a marked decrease in the number of all establishments registered and in the total revenue derived from fees during 1961 compared to 1960. The total number of registrations processed was for 5172 establishments within the bedding industry. This total includes for various classifications 925 manufacturers, in state and out-of-state, 430 renovators and 3817 retail stores offering items of bedding for sale. Receipts from specific registration fees as prescribed by the law totalled \$46,510.00, with \$51,810.00 being derived from the sale of authorized bedding inspection stamps. This represents approximately 2.4 million one-cent inspection stamps and 1.4 million two-cent inspection stamps.

The provision of the 1959 statutory amendment to the Bedding Inspection Act, which brought within the original regulations all processed filling materials in addition to finished items of bedding, had been well achieved in the administration and enforcement program by the beginning of this calendar year.

A summary of the inspection activities of the five regional inspectors reveals that 7201 accredited inspections of various establishments were made, with 27,253 items found in some condition of noncompliance.

Of these, 4250 were placed "Off Sale" pending corrections or prohibited from sale and returned to the manufacturer. By far, most violations found were considered minor and permitted to be corrected by either the manufacturer or the retailer. The major type of violation most commonly occurring is the failure to place the required inspection stamp on the label as attached to each item of bedding offered for sale.

Laboratory service was not available during the last five months of the year for use in the identification of filling materials and control over any misrepresentation. The chemist assigned to the program resigned in August and a replacement could not be obtained until the end of the year. Laboratory analyses were performed on a total of 219 samples, requiring a total of 787 various types of physical and chemical tests for accurate identification.

Appointment of a qualified person to the position of field supervisor at the beginning of the year has been most beneficial to the administration of the inspection activities.

Educational activity continued through the year to the general public and to related or interested groups. Over 5000 special pamphlets entitled "When You Buy Bedding" were distributed through the Home Demonstration Agents and to home economic classes in various high schools. Thirteen exhibits with lecture demonstrations were presented to County Home Demonstration Clubs.

The activities of the actual inspections of establishments for seeking and controlling violations were carried on in 1961 with the same number of inspectors as during the previous year. The unbalanced distribution of establishments makes it an almost impossible task for inspectors in the southeastern and southwestern regions to have a high degree of control. The inspector in the southeastern area has approximately 1400 establishments while the one in the southwestern area has about 1200, and so both are limited to the number and frequency of inspections that can be made. This makes it practically impossible to obtain the desired enforcement.

AIR POLLUTION CONTROL PROGRAM

1961 was the second year of operation of the air pollution control program under the bureau. This program consists of two phases: rendering statewide technical assistance to counties having air pollution problems and the operation of the Polk-Hillsborough Air Pollution Control District.

The Florida Air Pollution Control Commission, during the year 1961, consisted of the following members: E. T. Casler, D.Sc., W. R. Fort, A. V. Hardy, M.D., E. R. Hendrickson, Ph.D., A. P. McIntosh, F. Lynn McNeer, W. D. Miller, R. E. Parks, M.D., L. H. Wear and G. F. Westbrook, Ph.D. Dr. E. R. Hendrickson served as FAPCC chairman and W. D. Miller served as vice-chairman.

The FAPCC held six meetings during the year. Research on fluorides in citrus was continued at the Citrus Experiment Station and district personnel continued to review and approve engineering plans for air

pollution control equipment. The FAPCC gave its support to a program to survey the possible damage to human health from fluoride emissions.

The 1961 Legislature amended Chapter 403 of the Florida Statutes and gave the FAPCC increased authority. The FAPCC now has some authority to work with the Board of Health in preparing the air pollution budget. There is a new provision for setting up districts, which is upon petition by the Board after investigation shows that a necessity exists for such action. There is a new provision which puts the FAPCC into contact with any new industry coming into the state and, perhaps most important, a provision that the courts may levy a fine of \$300 against an offender who violates orders of the FAPCC.

Statewide Technical Assistance and Special Studies

This program provides technical assistance to county health departments in handling local air pollution problems which may be beyond the technical capabilities of the county personnel. This program also conducts special air pollution surveys when the need arises.

During the spring of 1961, severe vegetation damage was experienced in Duval County. As a result, the bureau, in conjunction with the City of Jacksonville Health Department and the USPHS, conducted a county-wide survey during the first week of August and again during the first week of September. Measurements were made at several locations for concentrations of hydrogen sulfide, sulfur dioxide, fluorides, oxides of nitrogen, total oxidants and particulate matter. Questionnaires were sent to the industries within the county and plant visits were made to determine what pollutants could be coming from specific sources. The results and recommendations of this survey will be published early in 1962.

Personnel from the Winter Haven laboratory assisted the Palm Beach County Health Department in a two-week survey at Riviera Beach. The objective of this survey was to establish levels of sulfur dioxide concentration.

In April 1961 Chapter XXXIII of the State Sanitary Code became effective. This chapter, entitled "Air Pollution," permits county health department personnel to deal with minor or nuisance-type air pollution problems. Specifically prohibited under Chapter XXXIII are: the creation of a public nuisance or health hazard due to air pollution, and the emission of dense smoke.

The program of technical assistance to counties was pursued more vigorously than in 1960. However, a lapse of about two months occurred as a result of a change in personnel in the Jacksonville office.

Polk-Hillsborough County Air Pollution Control District

The primary responsibility of the air pollution control district concerns eight phosphate mining fertilizer manufacturing companies in Polk County and two similar companies in Hillsborough County. During the year, monitoring of the fluorine output by these 10 companies was done through the analyses of grass samples, specially treated and exposed filter

papers, citrus leaves and ambient air samples. In addition, gladioli sampling and analyses were utilized in Hillsborough County as a monitoring and survey method.

During 1961 Pensacola Bahia grass, accepted for standard monitoring of vegetation, was put out at six locations around each of 13 possible air pollution sources. One additional source can only be encircled by three stations. One of the encircled areas located near Fort Meade is utilized in gathering background information to give conditions prior to the start-up of a new triple superphosphate plant presently under construction. These monitoring stations, together with four background stations located between Lake Wales and LaBelle, constitute a total of 84 grass sampling stations. All 84 stations are sampled within a three-day period after a four-week exposure. As many variables as possible have been brought under control. The exceptions are the rate of growth of grass and actual quantities of fluorine emitted from the phosphate plants.

The gladioli are sampled every two weeks in order to determine the fluctuation of fluorine content in the plant leaf.

In addition to the monitoring programs, the district provides technical and advisory services to counties and interested parties upon request. Laboratory services were provided individuals where the information was of benefit to the overall programs. Also, the various committees of the FAPCC were provided with sampling and laboratory services as much as possible.

The citrus monitoring program is on a cooperative basis with the Citrus Experiment Station in Lake Alfred. They gather citrus leaf samples from the stations and locations that the district designates. In return, analyses are run for special research work that they are conducting. The purpose of the district's citrus monitoring program is to establish the boundaries of the affected area.

During the 1961 session of the Florida Legislature, a small appropriation was made to initiate an inplant source sampling program. Two men were obtained to assist personnel to begin this program, but the loss of existing personnel created quite a hindrance in the program. Meetings were held with representatives of the State Board of Health, industry and USPHS in an attempt to standardize the sampling procedures that would be used once the program was begun. Agreements were reached to the extent that sampling could be started.

The FAPCC held six general meetings during the year and took a trip through two phosphate plants while making a cursory inspection of six others.

The FAPCC chairman held a meeting of representatives of the University of Florida, State Board of Health, USPHS and industry to discuss the possibility of establishing emission standards of particulate and gaseous fluorine. The work of this group is to continue. No definite conclusions were drawn.

District personnel acted upon nuisance-type air pollution complaints within the district on two citrus feed mills, one electric generating plant

soot problem and one chemical company's toxic gaseous emission. . . . A survey was run to determine sulfur dioxide concentrations at Riviera Beach in Palm Beach County. Efficiency studies were made on an incinerator in Duval County. . . . The district program provided chemical analyses for the complete and comprehensive Duval County air pollution survey. . . . During the year there were 21 complaints of personal irritation and discomfort from within the district boundaries. Two of these complaints represented masses of people, one of which resulted in two meetings with the City Commission of Mulberry. . . . Personnel were called before the grand jury which was investigating air pollution in Polk County.

During the year, 16 sets of plans and specifications pertaining to air pollution were reviewed and approved. A breakdown of the contents of these plans is as follows:

- 1 Complete gypsum wallboard plant
- 3 New sulfuric acid plants
- 2 Mist eliminators installed on existing sulfuric acid plants
- 2 New diammonium phosphate plants with controls
- 4 Additions to phosphoric acid plants (three with new controls)
- 2 New dry mills with controls
- 7 Control devices for existing drying and grinding mills
- 1 New calcine kiln with cyclones
- 1 New calcine kiln with cyclones and scrubbers
- 1 New scrubber for an existing calcine kiln
- 3 Improved *gaseous collection systems
- 1 Replacement of a *gaseous scrubber
- 2 New *gaseous scrubbers on existing facilities
- 13 New *gaseous scrubbers on new facilities
- 6 New *gaseous scrubbers on existing facilities being installed at the year's end

*Gaseous contains fluorine gas and liquid fluorine compounds

A breakdown of the sample analyses is shown in Table 43. The number of fluoride distillations increased 26 per cent over 1960.

TABLE 43
NUMBER OF AIR POLLUTION SAMPLES ANALYZED,
BY TYPE—1961

Samples Analyzed	3521
Total distillations	4513
Type of sample:	
Natural grass	184
Bahia grass	722
Filter papers	875
Gladioli	144
Citrus	606
Ambient air	14
Miscellaneous (soil, rain, bones, H ₂ O, spec. vegetation, SO ₂)	147
Outside the district	829
This constitutes 4513 distillations.	

STREAM POLLUTION CONTROL (Winter Haven Activities)

Among other things, the stream pollution control activities of the Winter Haven environmental program were a continuation of the bi-monthly or biweekly water sampling program on the Alafia, Hillsborough and Peace Rivers, the latter with its two large tributaries, Saddle Creek and Peace Creek Canal.

The Palm, Little Manatee and Caloosahatchee Rivers were added to the surveillance program on a bimonthly basis. Some smaller streams and tributaries were sampled and, in some cases, given special attention.

As a result of the continuous monitoring program, it was discovered that one of the phosphate companies was discharging highly acid wastes to the Alafia River. Legal action against the company has forced it to plan and begin construction of waste treatment facilities. Completion date of such facilities will be early in 1962.

The program has resulted in five other phosphate companies making major improvements in their liquid waste treatment and disposal methods.

There have been no major dam breaks or discharge of slime or other phosphate mining wastes to any of the waterways in the area during the year. There have been two occasions where minor amounts of slimes have been discharged to the Peace River through broken pipes or valves.

Although the phosphate industry is a major concern and requires the majority of the surveillance and control work, many other industries have been dealt with during the past year. Work was performed with respect to three citrus plants located in central and east central Florida. One company has made changes in their waste treatment facilities and the degree of improvement was assessed by a concentrated three-day survey, together with additional spot checks.

Consultation, sampling, analyses, etc., have involved a metal-plating plant, a photographic developing company and two soft drink bottling companies. Three biological assays were conducted on the photographic developing company waste.

Two surveys were done on the Okeechobee City sewage treatment plant, to determine actual conditions of the plant with and without the load contributed by a local vegetable canning plant.

There were frequent calls from cities and counties to perform services in relation to municipal water and sewage treatment. As an example, a survey was performed on the Plantation Road Canal and South Broward Sewage Treatment Plant at Broward Estates near Fort Lauderdale. The purpose of this particular survey was to establish a criteria for maximum allowable organic loads that could be contributed to this and other canals in southwest Florida.

The annual spot check of the Central and Southern Florida Flood Control District canals in Dade, Broward and Palm Beach Counties was made. . . . Additional requests for investigative work on operations such

as drinking water, domestic and industrial wastes and agricultural problems came from Hillsborough, Pinellas, Polk, Hardee, DeSoto, Okeechobee, Palm Beach, Broward, Manatee and Sarasota Counties. . . . Biological sampling and identifications have been performed on all of the previously mentioned rivers and initial background work was performed on the Myakka, Little Manatee and the Kissimmee Rivers. . . . Biological work was continued on the southeast Florida canals and a study was made on the Orlando lakes in Orange County. . . . Cooperation between two state agencies, the State Board of Health and the Florida Game and Fresh Water Fish Commission, took place on two fish population surveys and a majority of the 16 fish kills that were investigated.

Operators from four sewage treatment plants visited the laboratory and received instructions and consultation, etc., from the staff chemist. One sewage treatment plant was visited by staff chemist to check out new equipment and start the operator on a planned program of analyses. The chemist also served as an instructor in the sewage treatment plant operators short school in Gainesville.

TABLE 44
ENGINEERING LABORATORIES ANALYSES—1961
BASIC WATER QUALITY DATA

LABORATORY	D.O.	B.O.D.	pH	Solids	Fluorides	C.O.D.	Chlorides	NO ₂ -NO ₃ -NH ₃	Phosphates	Biological	Miscellaneous*
Jacksonville.....	75	28	147	221	69	25	96	75	.....	16,825	1,031
Winter Haven.....	597	820	953	678	490	.....	113	964	113	6,125	2,350
Orlando.....	19	58	.....	140	.....	.....	56	.....	.....	33	33
Pensacola.....	694	651	363	612	.....	152	612	167	33	25,666	897
Mobile Trailer Lab....	145	145	145	76	.....	76	.....	.....	.....	.....	509
TOTALS.....	1,530	1,702	1,608	1,727	559	253	877	1,206	146	48,616	4,820

*Miscellaneous includes Phenols, Cyanides, Surfactants and other specialized analyses.

DIVISION OF WASTE WATER

RALPH H. BAKER, JR., M.S.S.E.
Director

The majority of the work consisted, during the year, of plan review and field work on a request basis. Field work is conducted on a cooperative basis with the regional and county sanitary engineers.

The statutory requirements may be summarized as: plan review, plant operation supervision, pollution control and education. With the staff available, the majority of the time is devoted to plan review. The

total dollar volume of public sewerage projects was increased by over \$3,000,000.

One new facet which has entered the picture this year has been the expanding use of incinerators in apartments, shopping centers and hospitals. The bureau is preparing a proposed criteria in order to obtain more satisfactory units within the state, hoping that this will alleviate a future problem which could arise through air pollution.

MUNICIPAL WASTES

This year, a total of 819 projects were submitted for review and possible approval as opposed to 777 projects in 1960. This increase in total number of projects submitted was quite surprising, in view of the apparent recession in the home construction industry still prevalent here in Florida. Of the 819 total projects received, approximately 88 per cent, or 725, were approved for construction.

It is significant to note that of the 725 projects approved, 190 were for new sewage treatment plants and 29 for modification and/or expansion of existing treatment facilities. The review of sewage treatment facilities by the staff takes considerably more man hours than that required for projects encompassing extensions of collection systems. A continuing trend in the construction of new treatment facilities in the past 11 years has taken place (Figure 4), thus reflecting the program of providing adequate sanitary sewerage facilities for this rapidly growing state.

The approval of two projects in Pinellas County, establishing the formation of the South Cross Bayou and McKay Creek Sanitary Districts, were unquestionably the most significant projects processed this year. In addition to the foregoing, St. Augustine, Mt. Dora, Bonifay and Ormond Beach were among some of the previously unsewered communities for which municipal-type sewage treatment plants were approved.

A total of 57 preliminary engineering reports covering proposed sewerage projects were reviewed and commented on during the year. The workload imposed by these preliminary reports is quite significant when the amount of time spent in meetings and consultations with the individual consulting engineers, in addition to the actual review, is taken into consideration.

In spite of the continuing increase in the number of sewage treatment plants being approved for construction, virtually no program exists for the inspection and control of the operation of these facilities. Approximately 50 per cent of the plants in operation are submitting operation reports as required. It is evident that a dire need exists to increase the staff so that a program of operational control may be implemented on a routine basis. At the present time, visitations to plants are made almost entirely for emergency situations.

The financial aid provided through Public Law 660 was a continuing impetus to the construction of sewage treatment facilities for municipalities. Congress, in July 1961, amended the Federal Water Pol-

lution Control Act and increased the scope of the grant program. These new amendments offer a greater opportunity to combat water pollution and conserve and restore our priceless resource. The following data indicate the assistance provided from this source:

FISCAL YEAR 1961-1962	
Federal allotment for fiscal year 1961-1962.....	\$ 1,785,240.00
Funds released by cities from unused contingency funds.....	18,488.70
Unencumbered funds from allotments for previous fiscal years.....	70,416.75
Total amount available to applicants qualifying for a grant for the current fiscal year.....	1,874,145.45
Number of applications received.....	33
(of these 17 were new applicants and 16 were letters from unsuccessful applicants of previous fiscal years requesting reconsideration of original applications or new projects.)	
Estimated costs of overall projects.....	21,377,820.75
Federal grants requested.....	4,961,580.40
Per cent of costs for which grants were requested.....	23.3

Assistance provided from this source was made by the USPHS to Auburndale, Belleair, Deerfield Beach, Haines City, Orlando and South Cross Bayou Sanitary District. Bonifay was reinstated and construction has begun. Favorable consideration is based on readiness to proceed with construction and other specified priority factors.

Industrial Wastes

The past year saw a rather large decrease in the number of industrial waste projects approved. Whereas the estimated value decreased to about one-half that of 1960, the number dropped to less than one-fourth that of the preceding year (Table 47).

The decrease was primarily due to fewer laundry waste treatment plant approvals. This may be partially ascribed to more restrictive action on requests for approvals, due to expected release of detergents, to prevent these materials from showing up in water supply wells and partly to the great number of laundries constructed in the past several years.

One approval was for a citrus waste treatment plant to be located in Polk County. This is the first such plant to be approved in Florida. The proposed design was based on experimental work carried on under the auspices of the Florida Citrus Commission and Citrus Experiment Station. A project which could lead to future approval was submitted for another citrus waste treatment plant and was under study at the year's end.

Other approvals include plating waste treatment facilities.

Operating reports continue to be received at approximately the same rate as during the last year.

Refuse Disposal

A composting plant was approved to serve North Miami. This is the first such plant to be approved in Florida. As proposed, it will have a capacity of 300 tons per day and is estimated to cost \$2,600,000. The plant is so designed that in the event difficulties are encountered with one half, the other half can continue to operate independently.

During the year, two sanitary landfill operations were approved. One is located in Ocala and the other in Sarasota. The total estimated capacity is in excess of 200 tons per day and is expected to cost slightly more than \$160,000.

During 1961, a total of 57 incinerator projects were reviewed and approved by this agency. Various conferences were held during the year with consulting engineers and incinerator manufacturers' representatives concerning the installation of municipal and package type incinerators. A major portion of the plans approved for incinerator installations were of the package type for supermarkets and apartment buildings.

Although the number of plans which are being received by this agency for incinerator installations is rapidly increasing, the bureau now feels it is in a position whereby it can adequately review plans for the installation of incinerators. Table 48 shows a breakdown of incinerators approved during 1961.

Past inventories have disclosed a high number of open dumps. These are not considered satisfactory methods of refuse disposal. An attempt has been made to improve such practices. Toward this end, considerable time has been spent in conferences with personnel from other bureaus. To expedite and simplify review of all types of refuse disposal installations, some current forms were revised to try to cover such installations.

Drainage Wells

During 1961, a total of 180 drainage well permits were issued. This is the lowest number issued since 1949. One hundred forty-four were issued in Dade County. The majority of these permits, as was true in the whole state, were to accept waste waters from closed stream air conditioning systems. The next largest group was for drainage of swimming pools.

There was a large drop in the number of wells permitted for lake level control purposes in Orange County. The consulting engineers retained by the county have completed studies and furnished reports to the county on three of the four major drainage basins involved. Work has been started which will result in disposal of surface runoff to streams, rather than depending on uncertain functioning of drainage wells. There has been less demand for such wells due to lack of heavy rainfall and flooding, such as was experienced in past years.

The State Geologist has continued his fine cooperation in furnishing geological evaluations of proposed drainage wells.

Personnel were present at several meetings with engineering personnel of the Central and Southern Florida Flood Control District, during which mutual problems of the District and the State Board of Health were discussed.

EDUCATION

The biennial Industrial Wastes Workshop was conducted in June. This was attended by approximately 100 persons from all types of indus-

tries in the state. Planning has been started for another such workshop to be held in 1963.

Planning is also underway for a short course, probably of two days' duration, to present to interested health department personnel information concerning technical review of incinerators.

During the year, the division director presented papers at several technical meetings.

Members of the staff cooperated in the provision of instruction given at five district short courses and one annual short course for water and sewage plant operators (See report of Division of Water Supply).

TABLE 45
SUMMARY OF PUBLIC SEWERAGE PROJECTS
APPROVED IN 1961

COUNTY	No. of Projects	Design Population	ESTIMATED COSTS			
			Sewers	Lift Station	Plant	Total
Alachua	4	588	\$ 91,662	\$	\$	\$ 91,662
Bay	1	90	6,900	. . . . .	. . . . .	6,900
Brevard	42	14,063	877,200	178,700	154,596	1,210,496
Broward	63	92,481	3,058,220	903,600	994,500	4,956,320
Charlotte	13	3,678	253,630	32,000	92,602	378,232
Clay	3	1,933	34,200	5,000	50,000	89,200
Collier	5	1,753	36,763	13,862	12,000	62,625
Columbia	1	. . . . .	. . . . .	4,500	. . . . .	4,500
Dade	74	95,896	2,563,750	719,050	619,800	3,902,600
Duval	113	44,406	1,185,429	245,190	964,250	2,394,869
Escambia	8	5,081	55,350	. . . . .	60,400	115,750
Franklin	2	35	5,000	. . . . .	. . . . .	5,000
Gadsden	1	. . . . .	3,400	16,000	. . . . .	19,400
Gulf	1	180	48,000	3,600	23,400	75,000
Hernando	2	218	19,700	. . . . .	7,500	27,200
Highlands	2	250	. . . . .	3,000	22,500	25,500
Hillsborough	44	16,677	718,059	61,400	165,402	944,861
Holmes	1	4,000	210,000	49,000	144,000	403,000
Indian River	4	494	8,500	. . . . .	. . . . .	8,500
Jackson	1	345	30,000	2,000	. . . . .	32,000
Lake	13	11,704	715,600	32,700	222,800	471,100
Lee	20	7,741	464,508	67,925	181,350	713,783
Leon	1	63	4,478	. . . . .	9,459	13,937
Manatee	24	13,764	294,575	57,000	166,500	518,075
Marion	4	35,430	50,024	. . . . .	. . . . .	50,024
Martin	3	3,046	487,800	75,500	9,700	673,000
Monroe	5	656	10,000	5,700	79,000	94,700
Okaloosa	4	9,484	145,000	59,000	25,000	229,000
Orange	51	210,181	2,928,560	660,850	1,016,350	4,605,760
Osceola	1	190	10,000	3,500	. . . . .	13,500
Palm Beach	30	24,443	1,431,795	827,021	305,500	2,564,316
Pasco	4	778	43,087	. . . . .	. . . . .	43,087
Pinellas	83	193,996	8,912,003	643,850	2,323,236	11,879,089
Polk	14	172,594	1,864,457	657,135	953,500	3,465,092
Putnam	2	250	40,000	3,500	. . . . .	43,500
St. Johns	4	21,900	510,933	692,674	595,000	1,798,607
St. Lucie	8	4,296	97,722	23,600	87,500	208,822
Santa Rosa	3	5,060	187,418	84,000	120,000	391,418
Sarasota	41	18,415	705,480	97,750	196,700	999,930
Seminole	14	10,689	240,505	50,500	307,000	598,005
Sumter	1	137	5,000	. . . . .	. . . . .	5,000
Volusia	10	21,648	2,283,748	446,000	632,000	3,361,748
TOTALS	725	1,048,633	\$30,228,456	\$ 6,725,107	\$10,541,545	\$47,495,108

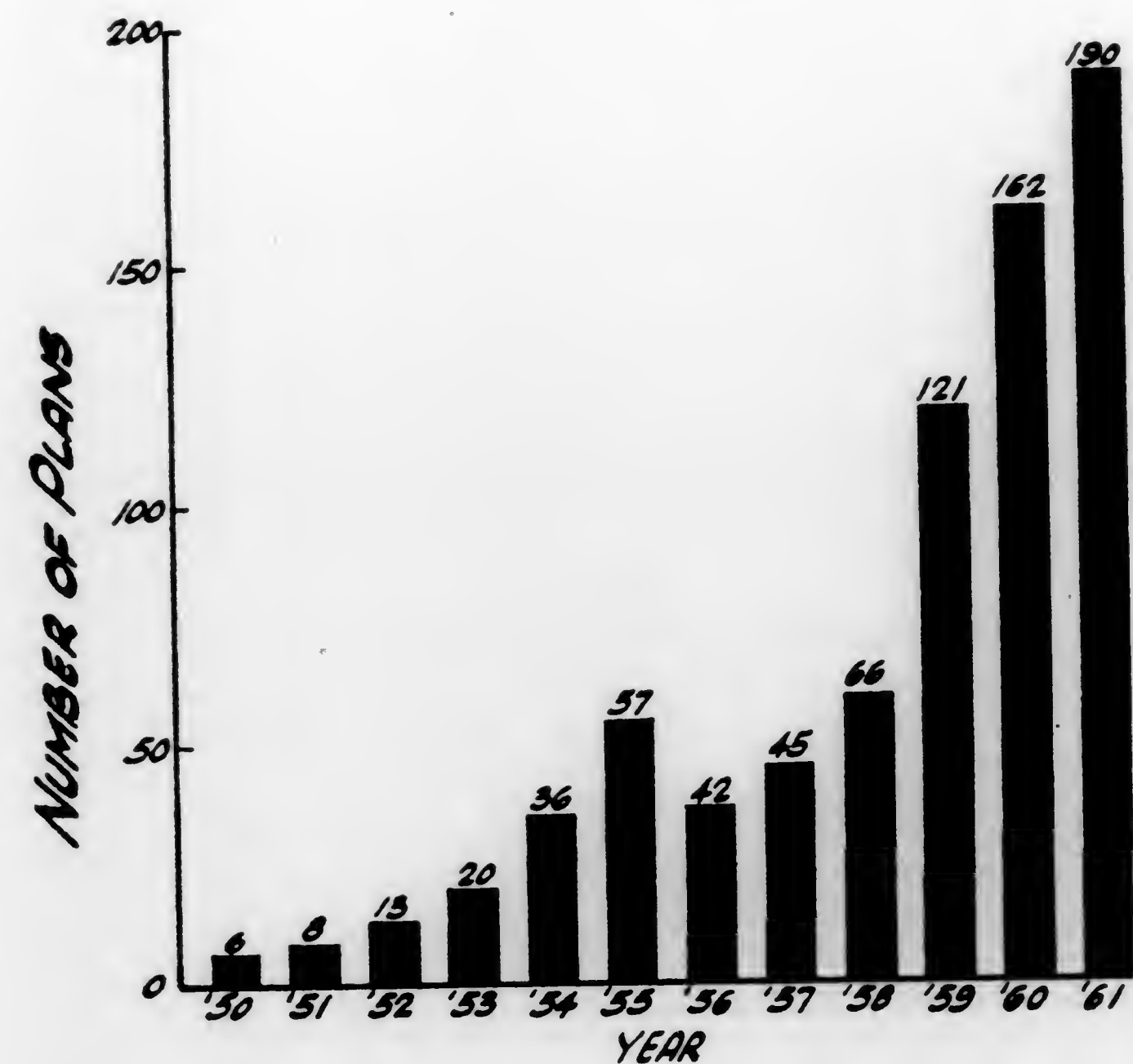
TABLE 46
WASTE WATER PROJECTS PROCESSED LOCALLY, 1961

REGIONS	
West.....	0
Northwest.....	26
Northeast.....	180
Central.....	21
Southwest.....	0
Southeast.....	7
COUNTIES	
Broward.....	N.R.
Dade.....	12
Hillsborough.....	8
Orange.....	3
Palm Beach.....	N.R.
Pinellas.....	78
Polk.....	11
Total.....	346

Note: Does not include septic tank-drainfield installations.

FIGURE 4

SEWAGE TREATMENT PLANTS
APPROVED



NOTE: THESE FIGURES EXCLUDE
SEPTIC TANK - SAND FILTER
INSTALLATIONS.

TABLE 47
INDUSTRIAL WASTE PROJECTS APPROVED IN 1961

COUNTY	No. of Projects	BOD Pop. Equiv.	Estimated Cost
Brevard.....	1	156	\$ 2,000
Collier.....	1	156	6,000
Dade.....	1	.....	8,000
Duval.....	1	201	5,000
Escambia.....	1	75	4,000
Flagler.....	1	78	1,000
Hillsborough.....	2	156	49,300
Lee.....	2	280	10,000
Manatee.....	2	346	10,000
Palm Beach.....	2	156	4,000
Pasco.....	1	224	5,000
Polk.....	2	23,500	337,500
Sarasota.....	2	175	10,000
Seminole.....	1	360	25,000
Volusia.....	1	156	2,000
TOTAL FOR STATE.....	21	26,019	\$478,800

TABLE 48
INCINERATOR PROJECTS APPROVED IN 1961

COUNTY	Number Approved	Population Equivalent	Cost
Brevard.....	1	390	\$ 3,250
Broward.....	9	3,230	26,900
Collier.....	1	390	3,250
Columbia.....	1	480	4,000
Dade.....	6	4,060	33,900
Duval.....	13	6,280	52,300
Glades.....	2	840	7,000
Hernando.....	1	150	1,250
Highlands.....	1	248	2,060
Hillsborough.....	3	1,440	12,000
Lake.....	1	480	4,000
Leon.....	1	480	5,000
Monroe.....	1	600	5,000
Orange.....	1	150	1,250
Palm Beach.....	5	1,920	16,000
Pinellas.....	4	2,450	20,400
Polk.....	2	720	6,000
Santa Rosa.....	1	480	4,000
Sarasota.....	2	690	5,750
Volusia.....	1	390	3,250
TOTALS.....	57	25,868	\$215,560

DIVISION OF WATER SUPPLY

JOHN B. MILLER, B.S., M.P.H.
Director

There were some changes in the staff of the division, particularly in the early part of the year, through resignation and transfer of personnel. As experience with the work is gained by those newly joined with the organization and with a stabilized situation, however, continued improvement of professional services is expected. There still existed during the year a long-felt need of more professional persons on the staff to carry out virtually neglected phases which result in an unbalanced program, particularly the sanitary surveillance of existing public water facilities.

The position of the department was improved in the water resources field as to public water supplies, upon completion of preparation and publishing in March of a tabulation of water quality data. The bulletin comprises a compilation (over 2800 analyses) of data on some chemical and physical characteristics of raw water sources of the principal public supplies in the state. Similarly, in relation to efforts for improving water works operation, a simplified manual as a guide to operators in water analysis work was also developed and distributed, which is particularly adaptable to smaller facilities in the state.

There were a total of 735 projects for public water facilities and public swimming pools, the engineering plans, specifications and related documents for which were approved during the year. The pool projects include those (20 per cent sample) reviewed for consistency which were approved in several counties having their own engineers in the health departments. The number of projects include those for which design details had to be reconciled with the consulting engineer; those of which approval was finally issued after revisions; and those projects which upon review were found to be approvable virtually as submitted to the department.

Efforts were made without success to gain amendment to regulations administered by office of the State Fire Marshal pertinent to the explosives law, to enhance control of dynamiting public water supply wells (also drainage wells), all in relation to protection of the state's water resources in general and public supplies particularly.

Important in the recreation field, as public swimming pools are involved, was the activity in cooperation with certain county health departments. The division jointly with the local departments carried out short-course instructional programs for pool operators and to some extent for local sanitarians.

PUBLIC WATER FACILITIES CONSTRUCTION

It seems important to mention the continued trend of construction and extension of community or central water systems in areas of the state outside municipal corporate limits. Of the total number of projects shown

in Table 50 for which engineering plans were approved during the year, 58.3 per cent were for subdivision facilities. This is about the same as for 1960 when 57 per cent of the total number were for such areas. Significantly, in the developments outside municipalities there generally is no political body or entity organized for water utilities operations, resulting in difficulties in undertaking this necessary feature of urbanization, which is done only to the extent possible with private capital. Many of the projects for subdivisions were for extending existing systems. They included 47 plant expansions and 58 new systems; and when completed will represent an increase in plant capacity or capability of 23.64 million gallons per day rating.

The remaining (41.7 per cent) number of projects shown in Table 50 were for municipal (or municipally franchised) water facilities generally, except for a district. These projects included 41 plant expansions, for increases in plant capacity or capability totaling 62.66 million gallons per day rating.

Referring again to Table 50, the estimated cost of construction as submitted in consulting engineers' data on the proposed works show about 28 per cent of funds to be spent on plant or "supply" and the remaining major fraction to go for extending systems in service area. This is about the same (31 per cent to supply) as during the previous year, indicating the continued need to expand or consolidate existing systems.

PUBLIC WATER WELLS

The continued development of ground water resources for supplies to serve the public is reflected in data on water wells carried in Table 51. Total number of well permits issued during the year is almost the same (250) as the number issued in the previous year. The tabulation shows the location by counties where the permitted wells were constructed (in 43 counties); although about half (50.3 per cent) were in only 16 per cent of the total number of counties in which the wells were drilled.

An attempt was made to get regulations strengthened by requiring State Board of Health permission before dynamite is used for water well construction. Objections were voiced by some members of the well drilling industry, principally on the basis of anticipated delay in those drilling operations where the drillers feel explosives will be needed.

Public Water Works Operation

Review of data in Table 52 shows a list by counties of the number of existing water facilities which serve about 100 persons or more, as per information obtained in a 1959 inventory. There are, of course, now more than the total 779 such systems shown; and it is expected that work which has been started to update the water works inventory on a statewide basis can be completed in the coming year.

The data in Table 52 also includes the numbers of water plants and visits to the plants in 1961, by water supply division personnel. Most of this activity involved the plants in counties in which the health

department does not have engineering personnel, in that 69.1 per cent of the total number of visits to 63.8 per cent of the total number of plants were in such counties. Only 9.3 per cent of the total number of plants in counties having engineers (Broward, Dade, Hillsborough, Orange, Palm Beach, Polk, Pinellas, Volusia) were visited by water division personnel, this involving 19.4 per cent of the total visits to water plants.

Significantly, the meager amount of sanitary surveillance of water works operation serving the public is obvious in these tabulated data, when it is realized that only 12.5 per cent of the plants were visited by central office personnel during the year. This activity, together with limited number of visits to plants in their respective areas by regional engineers, constitutes the total for this phase with exception of such activity as may be carried out by county sanitary engineers in their respective areas.

Promotion of and participation in inservice training and home-study courses for water works operators continued to receive the active attention of the division during the year. This is one of the most effective approaches to improvement of water utilities operation and maintenance. The annual one-week short course at the University of Florida and the several regional courses at vantage points over the state were again carried on in conjunction with the institution and operators' association. The data in Table 53 give a partial view of results of this activity to enhance operators' qualifications for performing their duties, in that the number taking the examinations and the number of successful certificate recipients in the several "class" designations are tabulated there.

FLUORIDATION OF PUBLIC SUPPLIES

One additional city commenced the application of fluorides to its public water supply during the year with approval of the department when the new fluoridation facilities were placed in operation by Ormond Beach and inspected by division personnel on July 24, 1961. Another city had submitted plans and specifications and received approval for proposed installation of fluoridation equipment, but possible actual installation continued to be delayed through court action. With the newly instigated project mentioned, the cities continuing public water supply fluoridation under technical supervision of the division during the year were Belle Glade, Clewiston, Cocoa, Gainesville, Miami (including other towns and cities obtaining water supply from Miami), Naples, Ocala, Orlando and Ormond Beach.

PUBLIC SWIMMING POOLS

This prominent factor in the water contact of the environment, in a state where tourism and water recreation are highly important economically, were the objects of the same amount of activity as the previous year. Data enumerated in Table 51 show total number of engineering plans and specifications approved, giving county distribution, and also show estimated costs of construction of the pools. The figures shown are

two per cent less as to number of pool projects and one per cent less for estimated dollar volume than like data for the previous year. Too, the low average estimated cost (\$14,150) continues to reflect the fact that a great many of the smaller pools were built for apartment projects, hotels, motels and similar places. These, however, all have their water filtration, chemical treatment and recirculation systems which require operation supervision.

As to sanitary control of operation of these water recreation facilities serving the public, the division continued its assistance to county health departments; and during the year helped conduct short course and field inspection programs in Bay, Leon, Taylor, Pinellas (St. Petersburg and Clearwater Beach) and Orange Counties. The pool sanitation and maintenance instructions were given to a total of 122 pool owners and employees, and included several sanitarians. Attesting to the continued amassing of the already large volume of the pool sanitation problem are the data in Table 51 on pool operation permits issued. The total of such permits issued to new pools represents a 31.5 per cent increase over the number issued in 1960, for the total of about 2300 permitted public pools in the state at end of the year. The table also shows distribution of these by county locality.

NATURAL BATHING PLACES

No new permits were issued for bathing and swimming places utilizing natural waters, so the situation remained as shown in Table 51 where permits continuing valid during the year are enumerated and listed by county location. Cataloging of all recreation places of this type in the state still remains to be done.

COMMON CARRIER WATER SUPPLIES

Under a cooperative agreement with the U. S. Public Health Service, and on the basis of Interstate Quarantine Regulations and Drinking Water Standards, the program for sanitary control of water supplies providing potable and culinary water used by interstate carriers was continued during the year 1961. This program relates to establishing and maintaining an adequate bacteriological sampling schedule, surveillance of chemical and physical quality of water, inspection of supply and treatment facilities and review of analysis results, all followed by appropriate action to correct deficiencies and insure safety of the water supply.

Supervision of the sanitary aspects of methods and facilities for placing water aboard airplanes, railway trains and vessels operating in interstate traffic is a function of the Division of Sanitation.

The field work involved was accomplished by health department personnel principally at regional and local levels. The results of these field activities were reported to the Central Office, which utilized the submitted data to coordinate subsequent field operations. These reports also served as the basis of the recommendations of the department to the USPHS Regional Office in Atlanta, relative to the approval or disapproval of each individual supply.

A total of 32 water supplies in Florida are currently listed by the USPHS as serving interstate carriers, pertinent details of which are shown in the accompanying table. Of these supplies, 12 serve airlines, 17 serve railways and 14 serve vessels. Each supply had to be inspected to determine compliance with acceptable criteria and the findings of these inspections were forwarded to the USPHS on prescribed report forms. Additional field visits to the supplies were frequently necessary due to this agency's recommendation that the facilities be given provisional approval for a limited period of time.

During the year, three additional supplies were added to the list, all serving airline watering or catering points. Two supplies were discontinued, one supply was reduced from approved status to provisional approval, and four supplies were elevated from provisional to approved status.

TABLE 49
SANITATION OF WATER SUPPLIES SERVING
COMMON CARRIERS—1961

COUNTY	No. of Supplies	Type Carrier Served			Ownership (1) of Supply		Number of Reports Submitted Recommending Status Shown			
		Air	Rail	Vessel	M	P	Approval	Provisional Approval	Prohibited	Deletion
Bay	2			X	1	1	4			
Brevard	1			X	1		3			
Broward	2	X		X	2		5			
Collier	1		X		1		3			
Dade	1	X	X	X	1		3			
DeSoto	1		X	X	1		2	1		
Duval	3	X	X	X	2	1	5			1
Escambia	1	X	X	X	1		3			
Gulf	1			X	1		3			
Hillsborough	3	X	X	X	1	2	6	2		1
Lee	1		X		1		2			
Leon	1	X	X		1		3			
Monroe	1			X	USN		3			
Nassau	1			X		1		3		
Okaloosa	1	X			USAF		1	1		
Orange	1	X			1		2			
Palm Beach	2	X	X	X	2		6			
Pasco	1		X			1	1	1		
Pinellas	2	X	X		2		4			
Polk	1		X		1		3			
St. Lucie	1			X	1		3			
Sarasota	1		X		1		1	2		
Seminole	1		X		1		1	2		
Sumter	1		X		1		1	2		
Volusia	2	X	X		2		4			
TOTALS	34				28	6	72	14		2

(1) Ownership

M—Municipal

P—Private

TABLE 50
SUMMARY OF WATER SUPPLY PROJECTS
APPROVED—1961

COUNTY	No. of Projects	Capacity Increase MGD	ESTIMATED COSTS		
			Water Supply	Distribution	Total
Alachua	3	0.65	\$ 41,600.00	\$ 13,400.00	\$ 55,000.00
Brevard	51	0.533	77,230.00	711,967.50	789,197.50
Broward	55	4.65	627,300.00	1,192,075.48	1,819,375.48
Charlotte	6	0.37	98,000.00	92,173.00	190,173.00
Citrus	2	0.57	25,832.00	22,000.00	47,832.00
Clay	3		3,000.00	19,600.00	22,600.00
Collier	5			78,761.00	78,761.00
Dade	59	1.54	536,000.00	1,331,565.00	1,867,565.00
DeSoto	2		30,984.00		30,984.00
Duval	65	3.95	292,796.00	738,518.00	1,031,314.00
Escambia	2			143,844.00	143,844.00
Franklin	2			6,500.00	6,500.00
Gulf	1		60,000.00	180,000.00	240,000.00
Hernando	8	0.76	16,400.00	156,400.00	172,800.00
Highlands	1			48,000.00	48,000.00
Hillsborough	29	3.56	174,000.00	577,751.00	751,751.00
Indian River	6		20,000.00	22,550.00	42,550.00
Jackson	1			64,000.00	64,000.00
Lake	11	0.83	177,150.00	260,310.00	437,460.00
Lee	9	0.12	6,000.00	137,791.00	143,791.00
Leon	3	0.16	9,500.00	96,390.00	105,890.00
Liberty	1		3,000.00	106,000.00	109,000.00
Madison	1		6,550.00		6,550.00
Manatee	21	4.42	206,600.00	185,200.00	391,800.00
Marion	3		8,350.00	27,871.00	36,221.00
Martin	3			130,000.00	130,000.00
Nassau	3	0.54	11,500.00	50,400.00	61,900.00
Okaloosa	2	0.21	13,500.00	101,500.00	115,000.00
Orange	25	2.25	126,600.00	705,764.00	832,364.00
Osceola	1	4.44	120,000.00		120,000.00
Osceola	1	4.44	120,000.00		120,000.00
Palm Beach	47	2.19	156,750.00	840,735.00	997,485.00
Pasco	4	0.29	13,218.00	42,500.00	55,718.00
Pinellas	41	34.0	3,696,000.00	9,118,787.00	12,814,787.00
Polk	8	7.27	154,502.00	257,647.00	412,149.00
St. Lucie	7	3.15	151,100.00	190,324.00	341,424.00
Santa Rosa	3	0.14	21,800.00	93,500.00	115,300.00
Sarasota	24	0.67	67,950.00	260,890.00	328,840.00
Seminole	15	2.99	199,278.00	148,076.00	347,354.00
Sumter	2			14,250.00	14,250.00
Volusia	13	6.05	171,000.00	457,216.00	628,216.00
Walton	3			30,389.00	30,389.00
TOTALS	551	86.30	\$7,323,490.00	\$18,654,644.98	\$25,978,134.98

TABLE 51
PERMITS ISSUED FOR SWIMMING POOLS, NATURAL BATHING PLACES, WATER WELLS; PLANS APPROVED FOR PROPOSED PUBLIC SWIMMING POOLS, BY COUNTIES 1961

COUNTY	PERMITS ISSUED				Plans approved for Proposed Public Swimming Pools	
	Swim- ming Pools**	Natural Bathing Places**	Water Supply Wells	Swim- ming Pools	Number	Estimated Cost
STATE	2,288	53	249	325	312	\$4,256,335.00
Alachua	14	2	3	4	4	55,000.00
Baker	1		1	1	1	65,000.00
Bay	24	1	3	6	4	20,500.00
Bradford	4					
Brevard	14		7		3	60,000.00
Broward	530	2	7	40	55*	452,306.00
Calhoun						
Charlotte	2					
Citrus	3		2	1		
Clay	3	8	1	1	3	23,250.00
Collier	14			10	4	37,180.00
Columbia	6			1		
Dade	660	2	9	43	69*	1,241,210.00
DeSoto						
Dixie					1	12,000.00
Duval	64		9	21	15	172,600.00
Escambia	19	1	3	9	5	87,300.00
Flagler	1			1		
Franklin		1	2		1	8,000.00
Gadsden	2		1	1		
Gilchrist						
Glades						
Gulf			1			
Hamilton		1	1		1	12,000.00
Hardee			2			
Hendry	2		3			
Hernando			4			
Highlands	1	1			2	28,000.00
Hillsborough	32	7	22	23	21*	358,150.00
Holmes						
Indian River	11				3	31,950.00
Jackson	4		1	1		
Jefferson						
Lafayette						
Lake	16	1	9	3	3	51,600.00
Lee	25		3	5	6	132,900.00
Leon	22	3	7	10	3	21,000.00
Levy	5			3	3	27,700.00
Liberty		2				
Madison	2		1			
Manatee	12	2	16	11	2	19,190.00
Marion	38	3	11	5		
Martin	6		1		1	8,000.00
Monroe	37				7	71,000.00
Nassau	12		1	2	3	27,500.00
Okaloosa	9		3	6	5	55,700.00
Okeechobee	1					
Orange	37	1	22	10	8	101,400.00
Osceola	1		1		1	20,000.00
Palm Beach	181	1	14	14	22	200,800.00
Pasco	1		8		2	28,000.00
Pinellas	179	3	26	22	21	396,200.00
Polk	53	3	5	17	7*	92,174.00
Putnam	6		4	3	1	9,200.00
St. Johns	29			10	1	10,725.00
St. Lucie	14		3	1	1	6,500.00
Santa Rosa	1		1		1	10,000.00
Sarasota	58	2	14	10	7	96,300.00
Seminole	6	4	8		1	51,000.00
Sumter			1			
Suwannee	2				1	15,000.00
Taylor	10		1	6	2	20,000.00
Union						
Volusia	109		6	18	11	120,000.00
Wakulla	1	1				
Walton	2					
Washington	2	1	1			

*Local county approvals
**Accumulative or continuous

TABLE 52
SUMMARY OF WATER PLANT OPERATION VISITS*—1961

COUNTY	No. of Plants Visited	No. of Visits	Existing No. Plants (As of 1959)
STATE.....	97	165	779
Alachua.....	1	3	10
Baker.....	1	2	2
Bay.....	2	3	13
Bradford.....	1	2	2
Brevard.....	6	16	12
Broward**.....	3	3	34
Calhoun.....	1	1	1
Charlotte.....	2	2	3
Citrus.....	1	1	3
Clay.....	1	1	8
Collier.....	2	6	6
Columbia.....	1	1	1
Dade**.....	2	5	48
DeSoto.....	1	3	3
Dixie.....	1	3	2
Duval.....	4	4	89
Escambia.....	1	2	15
Flagler.....	1	1	2
Franklin.....	3	6	6
Gadsden.....	1	1	5
Gilchrist.....	1	1	1
Glades.....	1	3	2
Gulf.....	2	7	4
Hamilton.....	1	1	3
Hardee.....	1	1	4
Hendry.....	2	5	2
Hernando.....	3	3	3
Highlands.....	1	4	9
Hillborough**.....	3	4	23
Holmes.....	1	1	1
Indian River.....	1	1	7
Jackson.....	2	2	12
Jefferson.....	1	1	3
Lafayette.....	1	3	1
Lake.....	2	2	13
Lee.....	7	9	7
Leon.....	1	1	32
Levy.....	1	1	5
Liberty.....	1	1	1
Madison.....	1	1	4
Manatee.....	5	6	28
Marion.....	1	3	12
Martin.....	2	4	5
Monroe.....	1	1	2
Nassau.....	1	1	4
Okaloosa.....	1	1	11
Okeechobee.....	1	1	2
Orange**.....	2	4	94
Osceola.....	1	1	3
Palm Beach**.....	14	19	35
Pasco.....	1	1	15
Pinellas**.....	1	1	13
Polk**.....	1	1	34
Putnam.....	1	1	5
St. Johns.....	1	1	4
St. Lucie.....	3	8	2
Santa Rosa.....	1	2	6
Sarasota.....	3	3	24
Seminole.....	1	1	35
Sumter.....	1	2	4
Suwannee.....	1	1	2
Taylor.....	1	1	2
Union.....	1	1	2
Volusia.....	4	7	20
Wakulla.....	1	1	4
Walton.....	1	1	5
Washington.....	1	1	4

*By Central Office personnel.

**County health departments having engineering personnel.

TABLE 53
WATER AND SEWAGE WORKS OPERATORS
SHORT SCHOOLS*—1961

SHORT SCHOOL	Applicants		Voluntary Certification Examination			
			No. Taking Exam.		No. Passing Exam.	
	Water	Sewage	Water	Sewage	Water	Sewage
Annual (Univ. of Fla.)						
(1) Class "A".....	6	11	6	11	1	4
(2) Class "B".....	10	9	10	9	7	6
Regional						
N. E. Reg. Class "C".....	15	16	8	16	2	5
N. W. Reg. Class "C".....	11	8	9	8	3	1
Cent. Reg. Class "C".....	20	25	20	25	8	16
S. W. Reg. Class "C".....	25	32	22	32	9	14
S. E. (5th) Reg. Class "C".....	29	44	24	44	6	21
(6th) Reg. Class "C".....	17	10	16	10	8	2
Proctored Class "C".....	15	13	15	13	6	10
Total Class "C".....	132	148	114	148	37	69
Total Classes "A", "B", "C".....	148	168	130	168	45	79

*This is a program of inservice training and home study under the aegis of State Board of Health carried out jointly with the Extension Division of the University of Florida, the Florida Water & Sewage Works Operators Association; Florida Section, American Water Works Association; and Florida Pollution Control Association.

BUREAU OF MENTAL HEALTH

WAYNE YEAGER, M.D., M.P.H.

Director

MELVIN P. REID, Ph.D., S.M. Hyg.

Assistant Director

There were two important new developments in Florida mental health. An Interagency Committee on Mental Health was formed in August 1961. This Committee is composed of the State Health Officer, the director of the Division of Mental Health, the Professor of Psychiatry at the University of Florida School of Medicine, the director of the Division of Child Training Schools and the director of the Florida Alcoholic Rehabilitation Program. The main purpose of the Committee is to provide a method of regular communication among these official agencies which are involved in statewide mental health programs. Presently, the Committee is working on a combined and coordinated plan for mental health progress in Florida. The second development was the creation by the Legislature of a Governor's Committee on Mental Health which is charged with the responsibility of surveying and studying the mental illness problems in Florida and to prepare recommendations for a progressive modern program in mental health for the whole state.

This bureau is concerned with the control and prevention of mental illness and the promotion of good mental health through efforts with community, state, regional and federal programs designed to maintain and strengthen the mental health of Florida people. It works to strengthen and coordinate varied services and programs so there will be a minimum of duplication and a maximum of preventive mental health services. The staff consists of a medical director and consultants in psychiatry, public health administration, mental health and psychiatric nursing, psychiatric social work, psychology and the social sciences.

Mental illness continues to be one of the major public health problems in Florida. Approximately 45,000 persons in the state are seriously incapacitated with mental and emotional illness and over 200,000 need the services of a psychiatrist or psychiatric facility. It is estimated that one in 10 school children have serious emotional difficulties and need child guidance services. Also, the state mental institutions are discharging patients more rapidly and the need for more follow-up services is increasing. Based on studies over the United States, it is conservatively estimated that mental illness costs the state over \$98,000,000 each year, or approximately \$22 per person.

The lack of professional manpower to meet the mental health needs of the state is becoming more critical as Florida's population increases. There is very little hope that an adequate supply of trained professionals will be forthcoming within the foreseeable future. To meet this manpower challenge the State Board of Health has engaged in an intensive program to find ways of spreading the professional skills of the psychiatrist,

psychologist, psychiatric social worker and psychiatric nurse to as many persons as possible. In order to do this ways are being sought to use the traditional public health teams, consisting of health officer, public health nurse, sanitarian, clerk and health educator, to provide broad linkage between mental health professional persons and the citizens of Florida. Emphasis in planning is on community-oriented mental health programs supplemented with close consultative relations with psychiatric, psychological and guidance clinics, social agencies and professional organizations.

As in the past, members of the bureau staff have participated in local, state, regional and national programs involving: parent-child relationships, adjustment of the aged, alcoholism, diagnosis and treatment of childhood emotional disorders, research and training in mental health, human relations in industry, the development of adult outpatient psychiatric services for indigents, follow-up studies for patients on trial visits from the state hospital, preadmission and concurrent assistance for state hospital patients and their families, services and programs for the retarded and brain injured, exceptional child programs in the public schools, the origin of delinquent behavior and preventive or control institutes, institutionalization of psychotic children and both formal and inservice training for mental health specialists and lay groups.

EDUCATIONAL ACTIVITIES

The educational activities of the bureau are determined by the need to help public health personnel increase their competence in mental health public health practices and to support and assist community voluntary and official agencies and groups in every appropriate way to initiate and carry on mental health programs conducive to optimum mental health for Florida citizens. The bureau provides financial assistance, leadership, co-sponsorship, and staff participation as indicated and requested.

Two workshops were conducted for mental health workers during the year. The bureau co-sponsored a workshop for law enforcement officers. Bureau staff members participated in the continuing inservice study programs for public health nursing personnel in county health departments, and in a wide variety of workshops and conferences sponsored by other agencies and groups. These groups included personnel and guidance counselors, rehabilitation counselors, policemen, county health department venereal disease investigators, nursing home operators, parent-teacher associations, mental health and child guidance clinic personnel, and mental health associations.

The bureau, in joint sponsorship with the Division of Public Health Nursing, offers workshops on Leadership and Interpersonal Skills in Mental Health and Psychiatric Nursing for small groups (8-10) of public health nursing supervisors on a continuing basis. Faculty is selected from the behavioral sciences and two or more nurse specialists in mental health, in public health and psychiatric nursing. A one-day follow-up conference is held two to three months following the workshop at which

time participants identify ways in which they have used the learning experience of the workshop and bring questions they would like discussed.

Interdisciplinary workshops on Human Relations and Leadership Skills are being offered through joint sponsorship of the Division of Public Health Nursing and the bureau, in cooperation with, and at the request of county health departments and local voluntary and official health and welfare agencies. Staff members from the bureau and clinics have served as resource persons and faculty.

OUTPATIENT CHILD GUIDANCE AND COMMUNITY MENTAL HEALTH CLINICS

For the 17 child guidance and community mental health clinics affiliated with the State Board of Health, the year 1961 was distinguished more by change and modification than by growth and expansion. No new clinics were organized and very few clinics reported an increase in the number of professional personnel employed. The total number of persons served and interviews conducted remained essentially at the 1960 level.

There were a number of internal developments and innovations introduced, however, which bear some mention. The clinics in Polk, Bay and Volusia moved into new quarters during the year. Those in Bay and Polk Counties reported new construction, while for Volusia County there was a move to quarters closer to the health department. Hill-Burton and County Commission funds were used to construct the Polk County clinic while Bay raised funds entirely from local contributions and fund drives. At the year's end, clinics in St. Lucie and Manatee-Sarasota Counties were readying themselves for new construction.

The move toward adequate psychiatric consultation was significantly enhanced with most clinics showing some gains in this respect. This is particularly reflected in the seven clinics directed by a psychiatrist as contrasted to three during the previous year. Only one clinic possessed a full-time psychiatrist at the end of 1960 compared to four full-time psychiatrist-directors at this year's end, with an additional clinic seeking a full-time psychiatrist-director.

The Council of Mental Health Clinic Directors, officially organized late in the previous year, came of age this year and for the first time since the annual Clinic Directors' Conference was instigated in 1954, assumed complete responsibility for the agenda of the directors' meeting and its activities during the year. Under Dan Overlade, Ph.D., Director of the Escambia County Mental Health Clinic, the Council, through its Ad Hoc Committee, made valuable contributions in (1) preparation of a model community mental health services act for Florida; (2) clarify issues involved in obtaining professional liability insurance for clinics, their staffs and boards of directors; (3) making recommendations concerning Merit System salary ranges and job descriptions for all mental health professionals, and (4) demonstrating their maturity in recognition of their responsibility to offer a broader service than the traditional diagnostic and treatment functions of the historic and orthodox clinic. Reflecting

their interest in consulting with allied professionals, groups and agencies in their respective communities who daily encounter distressed and disturbed persons, the clinic personnel voted to work with the Bureau of Mental Health in inviting Gerald Caplan, M.D., D.P.M., Harvard School of Public Health, for a two-day institute on consultee-centered case consultation. Using the philosophy and techniques of this workshop, especially in everyday clinic activities, should have profound implications in the future for waiting lists, relations with allied professionals, expanding the sphere of clinic impact on the community and, lastly, providing indirect services for those persons frequently outside the pale of clinic influence.

Perhaps one of the more significant achievements during the year was the continued participation of virtually all the clinics in a joint project on grant from the National Institute of Mental Health entitled "Behavioral Classification of Children's Disorders." Recognizing the inadequacy of the current diagnostic classification scheme for children's emotional and psychiatric disorders the clinics are collaborating in a study, attracting considerable national interest, which in a few years could eventually lead to standardized and unequivocal descriptions of the problems of children. These would permit descriptive epidemiological studies not now possible because of ambiguity in definition of illness. The grant was renewed during the year and an additional \$3,500 was appropriated to facilitate computer analysis and partial reimbursement to clinics for secretarial time consumed in the project.

Two clinics modified their administrative pattern during the year in the following manner: Volusia Clinic organized an advisory board of directors while the adult mental health clinic of Pinellas County (Clearwater), formerly administered by a board of directors, moved under the administrative aegis of the Pinellas County Health Department. The Dade County Department of Public Health, with an appropriation from the county commissioners, assigned to the Dade County Child Guidance Clinic the responsibility of organizing a psychiatric clinic in the juvenile court. This is the first such clinic facility to be developed in a court in Florida.

Personnel of four clinics during the year expressed considerable interest in the family treatment concept and held half-day institutes on "Multiple Impact Therapy." This is a team effort directed toward not only a patient, but the patient's entire family, exposes more dramatically than ever before the myriad of social and family interaction conflicts related to the patient's difficulty.

The revision of the clinical psychology series, creating a five class range rather than the former four class range, made possible the assignment of two clinic directors, Charles Taffel, Ph.D., Palm Beach County Clinic, and Kent Miller, Ph.D., Leon County Mental Health Clinic, to informally comprised regions of the state to assist this bureau in its consultative roles and responsibility to health departments, mental health workers, clinics and other groups in these respective areas. At year's end, the psychiatric social worker series was ready for revision as well.

There were promising developments in private psychiatric reporting whereby the 14 psychiatrists in one county psychiatric association were beginning a formal and systematic reporting of all new admissions in a manner paralleling, but not identical to, the customary reporting practices on all terminated patients from the various affiliated clinics. An adult clinic, sponsored by the Palm Beach County Mental Health Association and soon to be affiliated with the Palm Beach County Health Department, was developing and expected to be in operation in early 1962.

With the year 1961 seen in retrospect and with each clinic director faced with limited funds, excessive demands for services and staff shortages, considerations of "productivity ratios" loomed important. Each clinic was struggling valiantly with ways to improve the ratio of the number of persons seen and interviews conducted in relation to the total number of professional man hours available in his program.

MENTAL HEALTH WORKER PROGRAM

Program activities in the mental health worker program remained about the same as in recent years. (For a complete description of this program, see the 1960 Annual Report.) Presently, there are 25 workers assigned to county health departments. During 1961, they admitted a total of 3536 patients to services and made 7002 field visits and 9501 office visits. There is increasing evidence that the professional performance of these health workers is reaching a high level of maturity and their contributions to county health department programs is becoming increasingly important.

PSYCHIATRIC UNITS IN GENERAL HOSPITALS

For several years the State Board of Health has cooperated with several state organizations and hospitals in providing the establishment of psychiatric units in general hospitals. A committee with representatives from the State Board of Health, University of Florida School of Medicine, Florida Medical Association, Florida Hospital Association, the Florida Mental Health Association and others was formed for the purpose of surveying the private facilities in Florida for the mentally ill. This study revealed that during 1959 over 5665 patients were treated in 14 general hospitals. The total number of beds available was 299. About 4500 of the 5665 patients treated were discharged to their homes and many to full employment. Only 1500 required prolonged treatment or commitment to the state hospitals. During the period, July 1, 1958—June 30, 1960, the four state mental hospitals admitted 8798 patients or approximately 4400 per year and the total net separations amounted to about 4100 per year. These data indicate that Florida is making real progress toward providing adequate psychiatric services in the general hospitals. At the end of 1961 the total number of beds for psychiatric patients in general hospitals had increased to over 500. This bureau continued to encourage communities to work for more psychiatric beds in their local hospitals, and several cities plan to open psychiatric units as soon as staff and funds are available.

Under the Florida Hospital Service for the Indigent Program it is possible to admit patients with an acute mental illness to the general hospitals which have appropriate facilities and when a psychiatrist will provide the medical care. This part of the program is important because it provides for short-term intensive treatment for the mentally ill person and can affect considerable savings for the state because many can be treated and discharged rapidly, thus relieving the state hospitals of having to carry an excessive care load.

FOLLOW-UP SERVICES FOR PATIENTS DISCHARGED FROM MENTAL HOSPITALS

County health departments continued to give strong support to patients and families with problems of mentally ill health during 1961. In 61 counties public health nurses and mental health workers made numerous field and office visits to patients. The directors of county health departments have worked actively toward the building of mental health services and programs into the county health departments. In 1961, a total of 10,201 patients were admitted to mental health services, and over 3500 of these were patients on furlough or trial visit. It is interesting to note that in 1961 the readmission rate of patients on trial visit from the state mental hospitals was 31 per cent as compared to 45 per cent in 1956. This decrease in readmission rates occurred even though the total number of patients sent out on trial visit increased from 4554 in 1956 to 6484 in 1961. The important factors controlling readmissions are believed to be drug therapy continued by patient after leaving the hospital plus the follow-up program of the State Board of Health.

TABLE 54
SUMMARY OF MENTAL HEALTH ACTIVITIES
COUNTY HEALTH DEPARTMENTS 1961

	Number Patients Admitted to Service			Number Field Visits	Number Office Visits
	Child	On Furlough	Other Adults		
Public health nurse.....	1,398	2,319	1,879	17,609	6,597
Mental health worker.....	1,509	1,094	933	7,002	9,501
Health officer.....	706	136	227	128	3,822

RESEARCH ACTIVITIES

Although research has not been a major program in the past, the professional staff of the bureau is now spending an increasing amount of time conducting research and assisting other bureaus of the State Board of Health, county health departments, guidance clinics and other agencies in planning and conducting research. Members of the staff were frequently called upon to provide consultation regarding the design of

studies and for assistance in preparing applications for research grants. For several years, various members of the staff have served as members of, or consultants to, the Florida Council on Training and Research in Mental Health and to other state and national research groups.

While a majority of the research activities of the staff involve the field of mental health, many of the projects in which the staff participates involve other health problems and the broader aspects of public health practice. The following are some of the research projects in which the Bureau has been most active during the year.

A Study of the Rehabilitation of Former Mental Patients

This study represents an attempt to determine the extent to which 300 treated mental patients have been rehabilitated during a period of one year following hospitalization. Approximately one-half of the patients reside in a county in which the services of 32 community agencies and organizations have been coordinated to assist in the rehabilitation of former patients; the remainder of the patients live in a similar county which does not have a coordinated program for this purpose. A comparison of the rehabilitation of the patients in the two counties is being made as a part of the evaluation of the coordinated program. In addition an attempt is being made to identify factors which facilitate or retard the rehabilitation of patients in each of the counties.

The interviewing phase of the study has been completed and the analysis of the data is currently being made. The findings of the study should be available by June 1962.

A Study of the Rehabilitation of Treated Alcoholics

During the past several years members of the bureau staff and a number of mental health workers have assisted the Florida Alcoholic Rehabilitation Program in conducting a follow-up study of approximately 250 treated alcoholics. The study was designed to assess the patient's adjustment in the areas of employment, family relations, drinking habits and community relations. An attempt was made to determine the types or combinations of treatment that were most effective in facilitating the rehabilitation of alcoholics.

The preliminary findings of this study were reported at the 1961 meeting of the North American Association of Alcoholism Program Directors. A final report of the findings of this study will be available in 1962.

Development of a Behavioral Classification of Children's Disorders

During the year virtually all of the clinics have participated in a project aimed at developing more objective and descriptive indices of children's disorders. The project was undertaken in an attempt to offset confusion and ambiguity in the current psychiatric nomenclature. This project is supported by a grant from the National Institute of Mental Health. This classification scheme is being tested on approximately 2000 children in experimental and control groups.

Study of the Relationship of Social Class to Patient Status and Outcome of Treatment

An extensive analysis has been made of the relationship of the social class position to a variety of patient data variables. An attempt was made to determine the manner in which social class position was associated with diagnosis, amount and type of treatment and improvement following treatment. Approximately 7000 cases were included in the study. The findings have been reported at three professional meetings and should be published during the coming year.

A Study of Social and Psychological Factors Which Influence Poliomyelitis Vaccine Acceptance

For several years a member of the bureau staff has participated in studies in Dade and Hillsborough Counties that have attempted to determine the social and psychological factors which influence the acceptance of poliomyelitis vaccine. Attempts have been made to determine the manner in which these factors influence the acceptance of both injected and oral vaccines. The results of the Dade County study have been published in monograph form under the title of "The Epidemiology of Polio Vaccine Acceptance." The Hillsborough County Study is still in progress.

Jefferson County Tuberculosis Study

During 1961 a member of the bureau staff assisted in a study of factors which influence persons to participate in X ray screening programs. The study was conducted in five communities in Jefferson County. Particular attention was given to determining the respondent's beliefs regarding tuberculosis and chest X rays. The findings of this study will be available within the coming year.

Study of Migrant Agricultural Workers

For several years a member of the bureau staff has worked with the Bureau of Maternal and Child Health and the Palm Beach County Health Department in conducting a study of migratory agricultural workers. During 1961 a monograph based on the findings of this study was published under the title, "On the Season." The findings of other aspects of the study will be published during 1962.

In addition to the preceding, the bureau staff participated to a lesser degree in several other research projects. At present, plans are underway for conducting cooperative research projects with the Department of Sociology of Florida State University and with several county health departments and child guidance clinics. Since many of the mental health programs in the state are now reaching a point of stability in staff and program, it appears that in the future an increasing amount of the time of the bureau staff will be devoted to research devised to evaluate the effectiveness of existing programs and to develop more effective methods of preventing and treating mental disorders.

TABLE 55
DISCHARGED PATIENTS BY CLINICS, TYPE OF SERVICE, CONDITION ON TERMINATION,
REFERRAL SOURCE, AND NUMBER OF NEW CASES
FLORIDA CHILD GUIDANCE CLINICS
JANUARY 1, 1961—DECEMBER 31, 1961

CLINIC	TYPE OF SERVICE					CONDITION ON TERMINATION				REFERRAL SOURCE					Number of New Cases
	Diagnosis and Treatment	Diagnostic Study Only	Psychological Testing Only	Other Services Only		Improved after Treatment	Unimproved after Treatment	Not Treated	Self	School	Court	Agency	Physician	Other	
FLORIDA TOTAL	6,342	1,712	2,466	1,885	1,395	377	4,630	1,595	1,280	459	1,194	1,363	501	5,486	
*Alachua	199	56	61	66	44	12	143	42	36	7	47	87	80	188	
Bay	819	237	309	14	192	45	582	160	80	60	154	226	139	706	
Broward	262	72	72	115	62	10	190	141	47	5	36	31	2	238	
Dade	827	191	318	318	169	32	636	182	189	45	96	126	54	711	
Duval (Child Guidance Clinic)	815	174	76	58	138	36	141	57	1	12	73	113	59	287	
Duval (Mental Health Clinic)	516	169	191	14	142	53	347	180	63	18	107	106	42	445	
Escambia	479	86	287	66	40	67	19	393	61	89	143	80	1	413	
Hillborough	483	138	28	147	46	52	265	125	118	11	91	61	57	396	
Leon	275	31	102	129	21	10	244	59	50	19	34	78	36	258	
Manatee-Sarasota	601	158	221	207	31	27	443	143	217	29	96	98	24	513	
Orange	875	59	263	56	46	71	308	122	138	7	54	55	4	381	
Palm Beach	867	31	45	172	59	22	220	140	67	20	109	46	12	287	
Pinellas (St. Pete-Clearwater)	301	88	70	124	28	10	143	60	37	20	78	44	20	249	
Pinellas (Adult Mental Health)	181	54	143	21	45	9	169	25	88	15	87	135	8	153	
Polk	223	12	84	42	10	2	127	1	26	14	40	136	19	100	
St. Lucie															
Volusia															

*Alachua County Health Department, Division of Mental Health performs all of the above services but is not ready presently to report.

TABLE 56
DISCHARGED PATIENTS BY AGE, RACE, SEX, DIAGNOSIS, AND NUMBER TREATED
FLORIDA CHILD GUIDANCE CLINICS
JANUARY 1, 1961—DECEMBER 31, 1961

DIAGNOSIS	Total Patients	AGE IN YEARS										RACE AND SEX				Number Treated
		0-4	5-9	10-13	14-17	18-20	21-29	30-44	45-64	65 & over	White		Nonwhite			
											Male	Fem.	Male	Fem.		
FLORIDA TOTAL	6,342	415	1,731	1,353	984	179	541	760	330	49	3,383	2,380	299	280	1,712	
BRAIN SYNDROMES (Acute, Chronic) Associated with convulsive disorder (Idiopathic Epilepsy)	66	4	23	16	9	6	2	4	2		33	25	5	3	30	
Associated with Cerebral Arteriosclerosis or Senile Brain disease	9								3	6	6	2		1	7	
All Other Brain Syndromes	187	23	80	36	16	3	8	7	13	1	118	54	10	5	45	
MENTAL DEFICIENCY (Familial or Hereditary)																
Mild	56	2	19	16	18	1					35	12	5	4	2	
Moderate	51	6	15	18	6	2	3		1		19	13	12	7	2	
Severe	19	2	6	7	1		3				5	4	4	6		
Severity not specified	5	1	2	1		1					2	1	2			
MENTAL DEFICIENCY (Idiopathic)																
Mild	211	19	81	73	37		1				91	49	41	30	13	
Moderate	158	11	62	52	13	4	5	7	3	1	62	31	37	28	7	
Severe	61	8	27	12	10		2		2		21	14	14	12		
Severity not specified	13	5	4	1	2			1			10		2	1	1	
PSYCHOTIC DISORDERS																
Involuntary Psychotic Reaction	8								7	1	1	7			6	
Affective Reactions	23								8	2	6	15		2	15	
Schizophrenic Reactions	221	1	17	21	30	13	46	69	22	2	93	106	12	10	94	
Paranoid Reactions	6						1	3	2		4	2			4	
Other Psychotic Reactions	1				1						1					
PSYCHOPHYSIOLOGIC AUTONOMIC AND VISCERAL DISORDERS (Psychosomatic Disorders & Organ Neuroses)	44		11	5	5	2	5	10	6		17	20	5	2	28	

TABLE 56 (Continued)
DISCHARGED PATIENTS BY AGE, RACE, SEX, DIAGNOSIS, AND NUMBER TREATED
FLORIDA CHILD GUIDANCE CLINICS
JANUARY 1, 1961—DECEMBER 31, 1961

DIAGNOSIS	Total Patients	AGE IN YEARS									RACE AND SEX				Number Treated
		0-4	5-9	10-13	14-17	18-20	21-29	30-44	45-64	65 & over	White		Nonwhite		
											Male	Fem.	Male	Fem.	
PSYCHONEUROTIC DISORDERS															
Anxiety Reaction.....	296	1	95	56	35	12	46	47	4	1	174	116	1	5	183
Disociative Reaction.....	6		1	2			1		2		4	2			4
Conversion Reaction.....	24		1	1	3	8	1	4	5		3	15	3		12
Phobic Reaction.....	35	1	10	8	3	3	4	6	3		15	13		1	21
Obsessive Compulsive Reaction.....	133		3	8	4	2	6	9	1		20	13			23
Depressive Reaction.....	183		2	4	4	2	31	51	31	4	27	100		6	88
Psychoneurotic Reaction, Other.....	44		7	5	3	2	9	14	2	2	13	30		1	26
PERSONALITY DISORDERS															
Personality Pattern Disturbance.....	221	1	18	45	60	9	31	46	11		122	73	11	15	105
Personality Trait Disturbance.....	651	1	142	170	96	26	81	110	25		379	260	9	13	316
Sociopathic Personality Disturbance.....	81		1	16	30	7	7	13	7		55	18	7	1	18
Special Symptom Reaction.....	182	42	97	30	13						124	52	4	2	77
TRANSIENT SITUATIONAL PERSONALITY DISORDERS															
Gross Stress Reaction.....	6	1	2		2							4			5
Adult Situational Reaction.....	106		1			9	35	48	13		17	75	1	13	75
Adjustment Reaction of Childhood.....	700	45	432	216	7						488	193	10	9	352
Adjustment Reaction of Adolescence.....	358		1	108	289	10					194	135	11	18	146
Adjustment Reaction of Late Life.....	6				2	1			4	1	2	4			4
Other.....	4							1							
NO PSYCHIATRIC DISORDER FOUND.....															
	163	71	37	19	14	3	2	3	2	2	84	61	6	2	
NO DIAGNOSIS MADE.....															
	2,164	170	534	406	312	61	204	298	153	26	136	861	87	80	

FLORIDA COUNCIL ON TRAINING AND RESEARCH IN MENTAL HEALTH

The Council consists of 11 members, representing mental health disciplines and the lay public. The following persons served during 1961:

Victor B. Johnson, Ed.D., Tallahassee, Chairman
Loyal Frisbie, Bartow, Vice Chairman and Secretary
Mrs. James P. Anderson, Miami
John T. Benbow, M.D., Macclenny
Mrs. Barbara Buchanan, Gainesville
Mrs. E. W. Gautier, New Smyrna Beach
Major Gen. J. K. Lacey, Panama City
Rev. Robert J. McCloskey, Cocoa
Coyle E. Moore, Ph.D., Tallahassee
Melvin P. Reid, Ph.D., Jacksonville
William M. C. Wilhoit, M.D., Pensacola
Kent S. Miller, Ph.D., Tallahassee
Edwin W. Peck, Gainesville
Mrs. E. Clyde Vining, Miami

Dr. Johnson was elected Chairman and Mr. Frisbie was re-elected Vice Chairman and Secretary for the fiscal year beginning July 1, 1961. Two members resigned during the year, Mrs. Anderson and Dr. Reid. Mrs. Vining was appointed to succeed Mrs. Anderson and Dr. Miller was appointed to succeed Dr. Reid. The commissions of two members expired during the year with Mr. Peck succeeding The Rev. Robert J. McCloskey and Dr. Moore being reappointed for another four-year term. Four meetings were held during the year, three in Jacksonville and one in Miami Beach.

Training stipends were awarded as follows: psychiatric social work 16, psychiatric nursing 5, clinical psychology 9, residency training in psychiatry 7. Effective July 1, 1961 the training program for residents in psychiatry was discontinued by the 1961 Legislature. The names of stipend recipients in 1961 are given elsewhere in this report. (See Scholarships for Professional Education.)

An institute in mental health and psychiatric nursing was co-sponsored at which approximately 75 nurses received instruction in new patterns of patient care and sources of help.

Two research projects started the previous year were continued in 1961: the Pensacola study "Changing General Hospital Milieu to aid the Mentally Ill"; and "Rehabilitation of Former Mental Hospital Patients," a study carried out in Hillsborough County. Funds were granted for a study carried out by Thomas A. Rich, Ph.D., in the Alachua County Health Department entitled "Development of a Mental Health Classification System for Program Analysis."

BUREAU OF NARCOTICS

FRANK S. CASTOR, Ph.G.
Director

This bureau has the responsibility for the administration and enforcement of laws dealing with narcotics, barbiturates and amphetamines, legal and illegal; registration of practitioners of the healing arts, drugstores and others legally dispensing or administering narcotic drugs; enforcing the pharmacy and medical healing art laws; registration of physical therapists and masseurs. On January 15, the bureau also took over the administration and enforcement of a portion of the Florida Food, Drug and Cosmetic Law.

All inspectors have police powers in making arrests and assisting other officers in preparing cases for the courts. There were 289 arrests made during the year, an increase of 84 over those of the previous year. Narcotic violations accounted for 135 of these arrests. An analysis shows 33 addicts were confined for treatment and the 135 arrested persons were charged with possession, sale, transportation or other connections with illegal narcotic traffic.

Arrests for violations involving barbiturates and amphetamines rose sharply over those for 1960. Cases totalled 98, of which 38 were directly connected with drugstore operations. Of this number, 19 involved Florida registered pharmacists. The total also included one chiropractor and one physician whose license had been previously revoked by the State Board of Medical Examiners. Those cases involving drugstores were reported to the State Board of Pharmacy for further disciplinary action at its discretion.

There was also a sharp rise in violations of the pharmacy law with 16 arrests for practicing pharmacy without a license. This figure is three times as large as that for the previous year and reflects the effect of the influx of Cuban professional refugees in some instances. The total number of arrests included four fake chiropodists and three similarly illegitimate physicians for practicing without a license.

For eleven and one-half months of the year, the bureau has been charged with the administration and enforcement of the drug and cosmetic sections of the Florida Food, Drug and Cosmetic Law; a statute designed to protect consumers of such products manufactured or sold within the state and not subject to the federal laws in this field. Registration fees totalling \$24,430 were collected from 1802 manufacturers throughout the nation, but this registration provision of the law was repealed by the 1961 session of the Legislature. The money had originally been intended for salaries of additional inspectors in the bureau but was placed in the state's general revenue. Because of the repeal of the registration section of this statute, it became necessary to request additional funds from the general revenue of the state in order to employ the four additional inspectors approved for the bureau for the purpose of

enforcing this act, and carrying on the additional duties imposed on the staff by the heavy increase in population during recent months.

The influx of Cuban refugees, some 85,000 in number at the close of the year, inevitably caused an increase in enforcement problems in the Dade County area. No specific breakdown along ethnic lines is made here, but the inspector in charge of the Miami office makes it clear that the increase in work there is proportionate to the expansion of the population. He notes, however, an appearance of cocaine among addicts, a phenomenon not seen prior to the advent of the refugees. Additional inspectors are to be employed for that office.

To avoid duplication of effort, the open inspections (unannounced inspections without prior complaint or suspicion) of drugstores will to a large extent be left to the inspectors of the State Board of Pharmacy since they now have personnel committed to this activity. The bureau made 857 open inspections during the year.

In the whole field of the bureau's enforcement activities, there were 1610 investigations (involving complaints or suspicion) made during the year. Besides those culminating in arrest or dismissal, 28 involved violations corrected without arrest. With these added to the 289 arrests, there is a total of 317 of the 1610 investigations accounted for. The remainder involved such things as false complaints or suspicions, situations where no evidence could be obtained, the criminal action had ceased or for other reasons no action was practical.

It is worthy of note that all inspectors from the bureau including the director attended the three-day conference of the National Narcotic Enforcement Officers Association, Inc., at Lexington, Kentucky, site of the U.S. Public Health Service Hospital for narcotic addicts, held in October. One day was spent at the hospital inspecting facilities and observing its practices, with the remainder of the time devoted to lectures and panel discussions. The event was of great value to the inspectors, many of whom had no previous opportunity to meet with their counterparts from the federal service and other state enforcement groups.

Educational activities, considered of prime importance by the bureau, consumed a gratifying portion of the staff's time. A total of 71 illustrated talks were made before audiences aggregating 3242 persons. The groups addressed included civic clubs, university and police training classes, PTAs, medical and other professional societies, etc. The speakers emphasized the importance of good laws, good enforcement and the value of public cooperation. They emphasized the dangers inherent in narcotics, barbiturates and amphetamines and the importance of education particularly of our young people in these matters.

TABLE 57
SUMMARY OF ACTIVITIES—1961

Investigations	1,610
Open inspections	857
Arrests	289
Violations corrected where no legal action was taken	28
Aggregate sentences imposed by the courts	302 years
Aggregate fines imposed by courts	\$6,875.00
Defendants receiving probation, deferred, withheld or suspended sentences	69
Cases discharged or nolle prosequi by courts	25
Cases placed on absentee docket	1
Narcotic addicts confined to state or federal institutions for treatment	33
Persons acquitted by the courts	25
Cases quashed	2
Talks made	71
Drugstores registered for 1961-62	1,552

TABLE 58
MEDICAL PRACTITIONERS REGISTERED WITH THE BUREAU
OF NARCOTICS BY PLACE OF RESIDENCE AS OF
DECEMBER 31, 1961
(EXCLUDES DECEASED PRACTITIONERS)

COUNTY	Total	Medical Doctors	Osteo- paths	Chiro- practors	Naturo- paths	Chiro- podists	Physio- therapists
TOTAL	6,820	5,310	440	550	153	151	216
Alachua	168	152	1	5	1	2	7
Baker	5	4	1				
Bay	53	41	4	5		1	2
Bradford	9	7	1	1			
Brevard	107	87	2	13		3	2
Broward	526	374	63	43	11	16	19
Calhoun	3	2		1			
Charlotte	10	7		3			
Citrus	9	7		1			1
Clay	14	13	1				
Collier	18	15	1	2			
Columbia	16	14		1			1
Dade	1,986	1,606	115	120	51	41	53
DeSoto	10	8	1	1			
Dixie	1	1					
Duval	523	454	12	30	7	8	12
Escambia	156	136	1	10		2	7
Flagler	2	2					
Franklin	7	4	3				
Gadsden	20	18	2				
Gilchrist	1	1					
Glades							
Gulf	6	6					
Hamilton	4	4					
Hardee	10	9		1			
Hendry	8	6	1	1			
Hernando	10	8	1	1			
Highlands	22	18	2	2			
Hillsborough	463	349	20	42	27	11	14
Holmes	4	3		1			
Indian River	27	21	2	2		1	1
Jackson	16	14	1	1			
Jefferson	4	4					
Lafayette	1	1					
Lake	60	42	3	9	1	2	3
Lee	72	56	4	7	2	2	1
Leon	89	72	3	4	2	2	6
Levy	5	3		1	1		
Liberty							
Madison	5	5					
Manatee	81	52	9	13	4	1	2
Marion	50	42	4	3			1
Martin	12	11		1			
Monroe	32	24	4	2			2
Nassau	8	8					
Okaloosa	31	26		5			
Okeechobee	6	4		1		1	
Orange	417	303	35	43	9	9	18
Osceola	18	11	4	3			
Palm Beach	350	276	14	36	4	9	11
Pasco	26	14	7	5			
Pinellas	615	420	76	56	21	22	20
Polk	218	176	6	22	2	5	7
Putnam	25	19	1	4	1		
St. Johns	22	19		1		2	
St. Lucie	34	25	3	5		1	
Santa Rosa	12	11		1			
Sarasota	155	113	3	15	4	4	16
Seminole	40	32	1	5	1		1
Sumter	3	2	1				
Suwannee	7	6		1			
Taylor	8	5		2	1		
Union	1	1					
Volusia	185	124	27	17	2	6	9
Wakulla	2	2					
Walton	8	8					
Washington	4	2		1	1		
Out of State	3,338	2,862	176	193	1	57	49
TOTAL	10,158	8,172	616	743	154	208	265

BUREAU OF ENTOMOLOGY

J. A. MULRENNAN, B.S.A.
Director

A number of deaths from parathion at the beginning of the year greatly increased the activity in the bureau. By the end of the year there had been 10 deaths from this agricultural insecticide.

The State Board of Health had drafted regulations to try to cope with the situation. They were presented to the State Board of Health Toxic Pesticides Advisory Council, were modified and then approved. The regulations were presented for open hearings and met with almost complete opposition from the manufacturers of pesticides and from some farmers. The entire matter was in the hands of the First District Court of Appeals for adjudication at the end of the year. The court will decide whether the State Board of Health or the State Department of Agriculture will have responsibility for the use of highly toxic pesticides.

ARTHROPOD-BORNE ENCEPHALITIDES

It is expected that this arthropod-borne disease will become more prevalent in the future. This would be expected unless mosquito control is greatly stepped up and expanded with the population growth. It is expected that many fresh water and pollution water species of mosquitoes will increase with the state's expansion into the fresh water areas. The increased density of mosquitoes will be brought about by increased ditching for roads and streets, flood control impoundments, sewage treatment plants and various types of industrial plants. It can be expected that where the virus infection builds up in the bird population, and with a corresponding build-up of the mosquito population, it will bring about outbreaks in the human population, as has been demonstrated recently. In 1961 the outbreak involved 25 patients and seven deaths in the general Tampa Bay area.

ARTHROPOD CONTROL

Source Reduction Accomplishments

Source reduction programs continued as in previous years and by the same methods. The state fund matching rate available for this program had declined to 30 per cent by the end of the year.

There follows a summary of the work accomplished and cost of various source reduction activities:

	1960	1961
Machine Ditching		
No. of counties participating	31	32
Miles of ditches dug or maintained	556.31	563.50
Cubic yards earth excavated	4,301,976	4,395,342
Average labor cost per cubic yard	\$0.091	\$0.089
Diking		
No. of counties participating	5	5
Miles of dikes constructed	57.30	153.22
Cubic yards earth excavated	649,917	809,021
Average labor cost per cubic yard	\$0.097	\$0.087

Hydraulic Dredging		
No. of counties participating	4	3
No. of dredges used	5	4
Cubic yards earth fill placed	1,116,379	1,077,820
Average labor cost per cubic yard	\$0.107	\$0.082
No. acres mosquito breeding area eliminated	179.85	193
Deepening and Filling		
No. of acres improved	70.97	41
Average labor cost per acre	\$134.44	\$161.39
Cisterns, Cesspools and Wells Filled		
No. of counties participating	1	1
No. cubic yards fill material required	794	1,083
No. cisterns, etc. filled	93	184
Average cost per cistern (labor and fill)	\$67.91	\$33.83
Vertical Drainage		
No. of counties participating	1	1
No. of holes drilled and blasted	2,037	1,081
Average cost per hole (labor & dynamite)	\$11.96	\$10.01
No. acres breeding area controlled	1,860	1,120
Sanitary Landfills		
No. of counties & districts participating	31	33
No. landfill sites operated	75	70
Cubic yards garbage buried	3,521,654	4,311,496
Average labor cost per cubic yard	\$0.072	\$0.060

Temporary Control Measures

The temporary control of arthropods, in both the larval and adult stages, through the repetitive application of chemicals, was carried out in 51 counties and districts. The application of a thermal aerosol fog, by ground equipment, and using an insecticidal formulation of three per cent malathion 90, three per cent lethane 384 and 94 per cent fuel oil (3-3-94) by volume, continued to be the recommended method for the control of adult mosquitoes, midges and gnats.

Two counties still rely on using other kinds of chemicals applied either as a dust, or mist, for controlling the adult stages of arthropods.

Increased interest was shown through the expanded use of airplanes in applying Paris green coated vermiculite pellets as a larvicide, and a malathion-oil mixture as a thermal aerosol for adulticiding.

The following is a summary of the temporary control work performed for the control of mosquitoes, midges and gnats:

	1960	1961
Miles fogged (malathion-lethane-fuel oil)	231,892	251,515
Gallons insecticidal formulation applied	1,368,571	1,508,798
Labor cost per mile fogged	\$0.706	\$0.667
Miles sprayed or dusted (other chemicals)	11,215	3,557
Pounds/gallons of insecticide applied	192,427	24,951
Labor cost per mile, sprayed or dusted	\$1.32	\$1.54
Treatment by Airplane		
Gallons of insecticide applied (fogging)		51,360
Acres treated		792,754
Labor cost per acre		\$0.0078
Gallons insecticide applied (spraying)		75,979
Acres treated		129,356
Labor cost per acre		\$0.0712
Pounds Paris green pellets applied (pelletizing)		107,670
Acres treated		6,009
Labor cost per acre		\$0.09468

Dogfly Control

The control of dogflies is necessary only in west Florida counties bordering the Gulf of Mexico. Breeding occurs principally in deposits of aquatic grasses that are washed ashore during the summer and early fall months. Control measures consist of spraying the grass deposits at weekly intervals with a five per cent DDT water emulsion.

The following is a summary of the dogfly control work performed in the eight counties:

	1960	1961
Miles of shoreline treated.....	3,139	1,639
Gallons of 5 per cent DDT concentrate used.....	12,691	7,660
Average labor cost per mile.....	\$3.96	\$6.09
No. of man-hours labor required.....	10,221	7,912

Counties Participating and Local Fund Budgets

The following counties participated in the State Arthropod Control Program during the year. Based on the fiscal year of the counties and as of December 31, 1961, the total amounts of local funds shown in the certified budgets for Arthropod Control activities are as follows:

Alachua.....	\$ 41,121.07	Lee (Ft. Myers Beach).....	39,174.86
Bay.....	70,892.69	Leon.....	60,000.00
Bay (Gulf Beaches).....	45,083.11	Levy.....	12,000.00
Bradford.....	9,980.00	Madison.....	1,547.66
Brevard.....	247,496.00	Manatee.....	65,891.16
Broward.....	62,568.00	Martin.....	34,000.00
Charlotte.....	45,215.00	Monroe.....	110,000.00
Citrus.....	77,540.77	Nassau (Amelia Is.).....	45,736.68
Collier.....	71,527.29	Okaloosa.....	32,495.69
Columbia.....	9,000.00	Orange.....	54,425.00
Dade.....	213,428.00	Osceola (Kissimmee).....	14,285.02
Duval.....	73,341.22	Palm Beach.....	212,506.00
Escambia.....	80,749.70	Pasco.....	59,813.59
Flagler.....	14,152.02	Pinellas.....	250,728.67
Franklin.....	10,183.00	Polk.....	159,137.20
Gadsden.....	11,463.00	Putnam.....	15,800.00
Gulf.....	27,300.00	St. Johns.....	59,500.00
Hardee.....	3,000.00	St. Lucie.....	103,974.00
Hernando.....	2,096.44	Santa Rosa.....	15,767.86
Highlands.....	5,413.01	Sarasota.....	119,757.00
Hillsborough.....	206,987.00	Suwannee.....	8,000.00
Holmes.....	2,525.00	Taylor.....	4,746.44
Indian River.....	265,574.65	Volusia (Regular).....	201,705.00
Jackson.....	6,178.51	Volusia (Landfill).....	16,000.00
Jefferson.....	10,027.97	Wakulla.....	12,500.00
Lake.....	73,795.40	Walton.....	6,000.00
Lee.....	272,700.02	Washington.....	2,800.00
Total local funds appropriated.....			\$3,677,558.70
Total funds appropriated by the state.....			1,650,000.00
GRAND TOTAL.....			\$5,327,558.70

Engineering

Assistance was given the directors in many counties and districts in program planning and budgeting. All proposed budgets and work plans

for 54 counties and districts were analyzed. Field inspections were made of proposed source reduction projects and engineering recommendations made, if needed.

Upon request by the Chamber of Commerce, a survey was made of the garbage disposal problem in Key West and a report prepared setting out possible solutions and costs. Steps were being taken at the close of the year to initiate the operation of a sanitary landfill in the early part of 1962.

A survey was made of Alachua County and a proposed program and budget prepared, which was subsequently adopted by the Board of County Commissioners. Alachua County is the latest county to enter the program. Gainesville has participated for several years.

Monthly progress reports on various activities, and costs, were received from the counties and districts and were tabulated and analyzed. Unit labor costs for various program elements were computed, and totals by items of work for the calendar year were prepared on each county and district. From these totals a statewide total was prepared.

Requests, by counties and districts, for assistance in maintenance of their records were frequent, and numerous visits were made to their offices to render assistance.

The monthly reports of receipts and expenditures by each county or district were carefully checked and a current record maintained as to each county's or district's financial standing.

Regional Entomologists' Activities

The five regional entomologists have continued their assistance and advice to counties, mosquito and arthropod control districts in guiding the operation of varied arthropod programs, evaluating the efficiency of temporary and permanent work, and assisting in budgeting and planning. Interest in the landfill and garbage disposal portion of the program has increased in several counties, and expansion into rural areas is progressing.

Other duties have included: The participation in Sanitarians' Classes, making *Culex quinquefasciatus* surveys in a number of places where their abundance has increased to a point of annoyance and concern in the effluent from city and community sewage disposal systems; giving assistance, particularly in south Florida, in the Lawn Spraying Program; establishing a new Arthropod Control Unit in Columbia County; extension work in airplane calibration for the use of Paris green pellets as a larvicide; assistance in securing material for the publication of the mosquito number of *Health Notes* (January 1961); activities connected with the making of surveys in northeast Duval County in anticipation of the formation of the last mosquito district to form a solid link of control for the entire Florida east coast; assistance as the occasion demands in the structural pest control program; and, making recommendations to citizens who inquire at the office or in the field concerning all types of insect and pest control.

Arthropod Identification Laboratory

The identification laboratory at Jacksonville continues to give yeoman service in the difficult job of correct identification of arthropods of public health importance, as well as household insects.

There were 10,348 light trap collections and 90 special adult mosquito collections examined, totaling 888,305 mosquitoes. In addition, there were 743 larval identifications and other miscellaneous insects identified.

One of the great insect pest problems facing the state is the so-called "blind mosquito." There were over 1043 species of these insects identified, as well as many of the same species determined for other state and federal agencies.

In September Mrs. Elisabeth Beck, specialist in this field, obtained a three-year grant from the U.S. Public Health Service. The first year of the grant was for \$7,176. The grant entails the cataloguing of all the 100-odd species found breeding in lakes of the state. Their life history and habits are also to be studied and determined.

Two new species were described and the records published in the September issue of *The Florida Entomologist*.

STRUCTURAL PEST CONTROL

This bureau continued for the fourteenth consecutive year its responsibility for licensing the structural pest control industry and enforcement of the state structural pest control law. There were no changes in the provisions of this law or in augmenting the Board of Health Structural Pest Control Rules. Public hearings were held on October 23 in Jacksonville and on November 6 in Gainesville to consider adoption of minimum performance standards for prevention and control of termites and other wood-destroying insects. The proposals are undergoing further revision and careful study. The objective of these minimum requirements is to have available legally constituted, irreducible minimum measures deemed necessary to bring worthwhile, effective termite control service to the public. In the absence of such minimum standards, experience has clearly shown the law to be seriously unenforceable with reference to the public interest.

Representatives of the bureau met with state pest control officials in Memphis, the Structural Pest Control Commission, the Florida Pest Control Association and other segments of the industry from time to time throughout 1961. These contacts, together with numerous visits to individual licensees and certified operators, have brought about a high degree of close working relationships conducive to effective enforcement benefitting the public interest and safety.

The number of licensed business locations increased five per cent while the number of identification card holders held almost constant. Homeowner complaints (involving licensees) and unlicensed operators investigated increased by eight and 133 per cent respectively. Arrest war-

rants filed against unlicensed operators increased 200 per cent. The Commission renewed 346 structural pest control certificates in 1961. Twenty-six new certificates were issued during the year.

TABLE 59
SUMMARY OF STRUCTURAL PEST CONTROL
ADMINISTRATION AND ENFORCEMENT IN
THE STATE OF FLORIDA, 1957-1961

Registration	1957	1958	1959	1960	1961
State Board of Health Licenses Issued.....	226	228	228	261	274**
State Board of Health Licenses revoked*.....	2	0	2	2	0
State Board of Health Licenses placed on probation*	6	1	0	5	1
Employees' Identification Cards issued.....	1,738	2,152	2,232	2,854	2,818**
Employees' Identification Cards revoked*.....					0
Employees' Identification Cards on probation.....					5
Thermal-Aerosol Certificates of Authorization renewed*.....	13	14	14	12	12
Enforcement					
Homeowner complaints investigated.....	91	97	162	87	94
Unlicensed illegal pest control operators investigated.....	22	5	9	15	35
Warrants filed against unlicensed operators.....	3	2	1	5	15
Letters of warning issued to unlicensed operators.....			2	6	10
Enforcement miles traveled (Jacksonville office only).....			11,583	16,647	18,222

*By Structural Pest Control Commission of Florida.

**Excluding 39 and 340 additional, reissued, change-of-address licenses and identification cards respectively. Licenses, identification cards and thermal-aerosol certificates issued are based on 1960-61 licensing year. All other entries are based on calendar year, 1961.

RESIDENTIAL LAWN SPRAYING

The State Board of Health adopted regulations in June of 1960, in the interest of public health, to control the use of certain highly toxic pesticides that are used in residential areas as horticultural sprays. These regulations set forth technical standards, qualifications required for certificates and permits, safety requirements, precautionary warnings, spraying techniques. They also provided for written examinations, suspension and revocation procedures; penalties, public hearings, a list of restricted and prohibited-use pesticides and an advisory council.

The members of the Toxic Pesticides Advisory Council in 1961 were: Vincent E. Stewart, Ph.D. (Chairman), Tallahassee; James Griffin, Jr., Miami (Vice-Chairman); J. R. Beckenbach, Ph.D., Gainesville; C. L. Brumback, M.D., West Palm Beach; W. G. Charles, Florence Villa; R. Earl Dixon, Jacksonville; William Harrison, Marianna; Ted Kaplan, Miami; Sidney Kirkpatrick, Ft. Lauderdale; George M. Talbott, Orlando; and Frank L. Holland, Winter Haven.

In 1961 these regulations were contested in two court cases. The Florida Pest Control Association questioned the authority of the State Board of Health to promulgate and adopt rules and regulations governing the commercial spraying of lawns and ornamental shrubbery in residential areas with highly toxic pesticides. The Pest Control Associa-

tion contended that this was the responsibility of the State Department of Agriculture. The case was heard in the Circuit Court of Duval County and was decided in favor of the State Board of Health. The Pest Control Association has appealed the case to the First District Court of Appeals.

The second case was heard in the Dade County Criminal Court, which ruled against the Board as having authority to require permits without legislative sanction.

The bureau has concentrated on an educational program until such time as the pending court case has been settled. Primary emphasis has been given to personal and public safety precautions. One of the major problems has been spray mist. Neighbors object, usually quite strenuously, to spray mist of highly toxic pesticides drifting into their property. This problem is being corrected by reducing the amount of pressure and using a larger nozzle. Most of the more progressive spraymen have already adopted this practice. A serious health hazard existed in the refill apparatus installed on many spray machines. The majority of spraymen refill their tanks from municipal water hydrants or the homeowner's water supply. Many spray machines were built so that the spray tank was cross-connected to the water supply. One known case of back siphonage occurred. Luckily, the insecticide charge had not been added to the spray tank at the time this took place. Most of these cross-connections have been eliminated.

Several cities and municipalities passed local ordinances governing the use of highly toxic pesticides within their corporate limits. Some of these ordinances were an adoption of the State Board of Health regulations. In all cases the State Board of Health list of restricted-use pesticides was incorporated into the local ordinances. Cities that passed local ordinances are: Auburndale, Daytona Beach, Daytona Shores, Deerfield Beach, DeLand, Edgewater, Holly Hill, Lauderhill, New Smyrna, Ormond Beach, Port Orange, South Daytona, St. Petersburg, Tampa and Winter Park.

Ten known accidental deaths caused by parathion occurred during 1961. Of this number, six were children under two years of age. In seven of these deaths the parathion either originated on a farm, or the individual was exposed while working in an agricultural pursuit. Parathion had been used to treat the home for insect control in the other three cases.

Regulations governing the use of highly toxic pesticides by agriculture were proposed and drafted during 1961. These proposed regulations would require individuals engaged in agricultural pursuits to obtain a purchaser's permit in order to be able to buy highly toxic pesticides; observe all safety precautions listed on the product label; and, destroy or decontaminate the empty container. Hearings were held at Homestead, West Palm Beach, Canal Point, Ft. Myers, Vero Beach, Tampa, Winter Haven, Gainesville, Jacksonville, Tallahassee and Pensacola. Agricultural interests were unanimous in their opposition to any additional regulations governing the use of pesticides. The proposed regulations have been

presented to the Board of Health. However, action has been postponed until such time as the pending litigation, Florida Pest Control Association versus State Board of Health, has been settled.

Number Employers Certificates issued.....	113
Number Employers Certificates renewed.....	801
Number Employers Certificates inactive.....	69
Total Number Employers' Certificates Issued 1960-61.....	983
State Board of Health Lawn Spraying Examinations passed.....	73
State Board of Health Lawn Spraying Examinations failed.....	41
Total Number SBH Lawn Spraying Examinations Proctored.....	114
Number Lawn Spraying Permit Cards issued.....	2,779
Number complaints received.....	29
Number violations reported.....	21
Suspensions or revocations.....	0

ENTOMOLOGICAL RESEARCH CENTER

MAURICE W. PROVOST, Ph.D.
Director

In addition to being the research arm of the Bureau of Entomology, the Entomological Research Center has an educational function. This role assumed fuller meaning in 1961, as reflected in the many conferences held at the Center and visitors received.

In August the Control Research Section moved into its new quarters, the two buildings financed jointly by the State of Florida (1957 Legislature) and the USPHS (Research Facilities Grant).

Staff changes during the year included the departure of two senior investigators: E. T. Nielson, Ph.D., and E. H. Warnhoff, Ph.D. These two vacancies, in the ethology and control research sections respectively, had not been filled by the end of the year. A reorganization of the biologist and entomologist series on the Merit System was approved. This will help materially in recruiting and retaining scientist personnel.

Federal subsidies of ERC researches continued through 1961 in the form of seven National Institutes of Health research grants and one contract from the U.S. Fish and Wildlife Service. Three NIH grants terminated with the year. This was offset by an extension of one through 1962 and the obtaining of two new grants effective for three and five years, starting with 1962. Securing competent personnel for these short-term grants can be achieved only by a continuing rotation of grants which can offer these workers the security of adequate tenure. It is proposed to develop this procedure to a point where federal subsidies will always constitute a significant proportion of the total ERC operational funds. The

revised Table of Organization for the state budget, effective January 1, 1962, will go a long way toward making this procedure feasible. The universal application of much of the ERC research findings renders it quite proper that so many of its studies should receive the assistance of federal funds, provided always that their scientific merit warrants it.

CONTROL RESEARCH SECTION

The researches of this section, under A. J. Rogers, Ph.D., are designed to implement the State Board of Health policy that biting pests should be prevented from breeding in the first place, and that until this can be achieved, destruction of the immature states (larviciding) should receive precedence over destroying the adult stages (adulticiding). These last two expedients rely on insecticides, and the state's policy to circumvent the resistance problem is to use only inorganic insecticides in larviciding and to reserve the organic insecticides, toward which the development of resistance is always possible, for adulticiding. And finally, the chemical operations recommended must always be the safest to human beings and the least likely to harm fish, wildlife and other legitimate resource values. Virtually all of Florida's mosquito control districts are now emphatically supporting these policies.

Control of mosquitoes, particularly the salt-marsh species, continued to receive most of the section's attention. Toward the end of the year the first steps were taken to launch research on the insecticidal control of sand flies (*Culicoides* species), but any rapid advance in this work will have to await the enlargement of the section's work force.

Water-Management Studies

Data from the Gifford study plots are now adequate to prove that impounding the salt marsh and keeping it flooded only during the period from March to November will satisfactorily prevent salt-marsh mosquito production along the middle east coast. However another study, aimed at defining the effects of various water-management practices on sand fly breeding, has shown that those marshes which are heavy sand fly producers will require continuous, year-round flooding to reduce these pests significantly.

Larvae of *Mansonia* mosquitoes, which attach themselves to the roots of emergent plants (cat-tail, arrowhead, etc.), did not show an increase on permanently flooded plots during 1961. It is hoped that these important mosquitoes will not become a major problem in salt-marsh impoundments. If they should, present indications are that they could be controlled by modified water-management practices which would control the invasion of impoundments by the emergent plants which act as *Mansonia* hosts.

The water-management project to control production of the mosquito, *Psorophora confinnis*, on improved pastures was launched in 1961. This is a cooperative project with the Brevard County Mosquito Control District and Deseret Farms, Inc. The location is a few miles west of Mel-

ERC Research Grants—1961 Summary

Source	Investigator	Investigation	Sum	Time Status
NIH	Nielsen/Provost	Insect migration	15,000	5th and last year
NIH	Provost	Gregarious behavior in mosquitoes	17,500	5th and last year
NIH	Harrington	Biology of larvivorous fish	11,000	4th year, 1 to go
NIH	Bidlingmayer	Mosquito sampling	14,350	3rd and last year
NIH	Lea	Autogeny in mosquitoes	26,450	2nd year, 3 to go
NIH	Rathburn	Insecticidal aerosols	10,476	1st year, 2 to go
NIH	Yount	Lake limnology	31,425	1st year, 2 to go
USFWS	Trost/Provost	Wildlife effects of salt-marsh flooding	2,500	1st year, 2 to go
			\$128,701	
NIH	Bidlingmayer	Mosquito sampling (continuation)	\$ 11,103	One year
NIH	Lum	Larval nutrition in mosquitoes	29,854	Five years
NIH	Provost	Mosquito production under control	23,701	Three years
		Continuing grants	68,162	
		New Grants	64,658	
		1962 Total	\$132,820	

Applied for in 1961 and approved for 1962

bourne in a pasture on the west flood plain of the St. Johns River. Unfortunately, the ditching system was not constructed in full compliance with recommendations, but it is anticipated that some useful information will nevertheless be obtained during 1962.

Larviciding Studies

The granular Paris green mosquito larvicide developed in 1957 at this laboratory is playing an increasing part in the state's mosquito control program. During 1961 a project was undertaken to learn more about the effects of this larvicide on fish and wildlife. Results of the study to date indicate that it is among the safest of known effective mosquito larvicides to fishes. The significance of this to the sports and commercial fishery resources of the state is obvious. Studies also were begun late in 1961 to improve certain physical aspects of the formulation and to reduce the cost of larviciding with this material.

Adulticiding Studies

The recommendations of this laboratory for malathion fogging continue to be the backbone of the state's mosquito adulticiding program. The thermal aerosol (i.e. fogging) equipment studies were continued during 1961 but were not quite completed as had been expected. These tests rely to a great extent on weather conditions, which were somewhat capricious during 1961. Also, one new fogging apparatus was offered for sale to Florida mosquito control districts in 1961 and thus became an addition to the equipment evaluation project.

A basic research project related to control of adult mosquitoes with aerosols is aimed at developing a photographic technique for measuring aerosol particles. This is a complicated, technical project supported by an NIH grant to Mr. C. B. Rathburn. Considerable progress was made during the year, in that photographs of thermal aerosol fog were obtained under field conditions as well as in the laboratory. Many refinements in the technique remain to be made, however, before the process can be useful in correlating particle size and spectrum with kill of adult mosquitoes, which is the ultimate objective of the project.

Midge Control Studies

These studies were impeded in August by the loss from state service of the principal investigator on this project, located at Winter Haven. However, considerable work was done and some progress made toward finding satisfactory control methods for this problem. The larvae of these Chironomid midges, sometimes called blood-worms because of their color, live in tubes they build in the bottom of lakes and ponds. Larviciding is accordingly a peculiarly difficult operation.

Laboratory screening of larvicides was dropped from the program because no satisfactory method for rearing midges to serve as a source of uniform test insects is available. Emphasis was shifted to improving techniques for field testing of larvicides. One of the significant advances in this respect was a refinement of sampling (i.e. dredging) procedures

to give a more reliable estimation of results, a problem that has plagued this work from the beginning.

Approximately 15 experimental compounds were tested against midge larvae in field tests during 1961. Of these, baytex showed the most promise.

ETHOLOGY SECTION

Studies of the life history, habits and behavior of biting insects, which are the function of this section, were greatly curtailed following the departure of E. T. Nielsen, Ph.D., and Miss H. T. Nielsen in April. It is hoped to have the section adequately reconstituted in 1962. In the meantime, studies of mosquito behavior were continued, stressing that of the southern salt-marsh mosquito, *Aedes taeniorhynchus*.

Migration Studies

Before leaving, Dr. Nielsen was able to complete his monograph on the biology and migration of the salt-marsh butterfly, *Ascia monuste*. This is the white, medium-sized butterfly whose phenomenal migrating streams up and down the east coast have aroused so much public curiosity. The ERC used this daytime migrant as a guinea pig, so to speak, to get at the basic mechanisms behind all insect migrants, including the nocturnally dispersing salt-marsh mosquitoes. The *Ascia* monograph was published in the fall and is a notable contribution to the understanding of insect migration. If this butterfly's migrations are now better understood than migrations of any other insect, it is because the life history and behavior of the butterfly *previous* to migration were learned in great detail. It is plain that the same sequence of study must be applied to mosquitoes if their migrations are ever to be explained. The initial stages of migration in *Aedes taeniorhynchus* are well on the way to adequate explanation, and largely because the same reasoning was applied to the study as proved so successful with *Ascia monuste*.

Male Swarming

The dancing clouds which the males of many mosquito species form at twilight have been intensively studied at the ERC because their relationship to mating needed to be known. It is now well demonstrated that while females may enter these swarms and be mated with, in all mosquito species well studied the significant mating in any brood or population occurs elsewhere than in these male swarms.

Also before leaving Miss Nielsen completed a large manuscript summarizing her three years of experimentation with mosquito swarming in cages; this will be published early in 1962. The report demonstrates the role of light, temperature and internal rhythms in regulating swarming behavior. It also supports all ERC field observational studies in demonstrating that male swarming is fundamentally independent of mating behavior.

Mr. J. S. Haeger has continued his studies of male swarming in the laboratory and in the field, emphasizing *Aedes sollicitans*, the second most important salt-marsh mosquito in Florida.

Migratory Exodus

Mosquito migrations start with a mass departure of newly-emerged mosquitoes from where they were reared, a phenomenon called the exodus. In the spring a pilot experiment in which several hundred thousand *Aedes taeniorhynchus* were reared in one of the ERC marsh plots was made to test the feasibility of maintaining a relatively constant water temperature through the use of plastic screening as shade during the day and as cover at night. The purpose was to control the time of adult emergence from the water and, thereby their age at the time of the migratory exodus, which in turn is suspected of affecting the range of migration. This was partly successful. The experience gained and the techniques developed produced some of the background for a research grant application by ERC's director which was approved by NIH before the end of the year. The work under this grant will involve better-equipped attempts to control the dispersal of this mosquito in nature. In November Dr. Robert D. Pausch was employed to head up the research team under the grant.

Pupation Rhythm

Aedes taeniorhynchus broods do not pupate at a constant rate but concentrate this moulting into intermediate stage between larva and adult in the late afternoon. Because this pupation rhythm brings about the important synchronization of a brood at emergence, it was deemed necessary to better understand and, if possible, control it. The first step was understanding the effect of the day-night cycle on this pupation rhythm. Temperature is such a powerful and overriding factor in all stages of growth that the experimentation had to be done at constant and rigidly controlled temperatures. A temperature-controlled water bath was designed to accommodate 30 (9" x 12") larval rearing pans and installed in one of the ERC constant temperature rooms. The control of water temperature in the pans was constant within .05° Centigrade. The initial experiments were very successful and the project will continue with experiments at various combinations of temperatures and light-dark cycles. Dr. P. T. M. Lum, from the Physiology Section, is assisting with these studies.

Colonizing Studies

Colonizing mosquitoes, i.e., rearing them through several generations or indefinitely in the laboratory, serves two major functions: it produces experimental animals as needed, and it teaches a great deal about the biology of the species reared. Some species are easily colonized and others, including several of Florida's worst mosquitoes, are difficult if not impossible to colonize. Attempts to colonize *Aedes sollicitans* were continued by Mr. Haeger. An exotic species of special value to studies of mosquito mating behavior was successfully colonized in 1961: *Opifex fuscus* from New Zealand. The remarkable behavior (male mates with female before she is out of the pupal skin) of this mosquito was studied at length and will be reported for publication early in 1962. This is all part of an extensive ERC study of mosquito mating habits.

ECOLOGY SECTION

This section concerns itself with the relationship of biting arthropods to their environment, as manifested in their distribution and abundance. Natural population controls and techniques for measuring populations are currently receiving major attention at the ERC. Toward the end of the year R. W. Harrington, Ph.D. after seven years as senior investigator in this section, was made Chief of the section.

Larvivorous Fish

During the year a monograph was completed and published by Dr. Harrington and Mrs. E. S. Harrington on the food habits of fishes invading a salt marsh under normal conditions of rain and tide flooding which produce batches of *Aedes taeniorhynchus*. This report analyzed two years of original data and reviewed the literature pertaining to the web of salt-marsh life. The major conclusion of the study was that no particular fish species should be especially encouraged as natural control for salt-marsh mosquitoes, but rather all native minnow species should be favored since they invade the marsh together and are all good predators on larvae. It was also brought out that the young of several game and food fishes are likewise significant larvivores.

Also during the year, under Dr. Harrington's NIH grant, sampling of marsh killifish (*Fundulus confluentus*) populations was completed. These collections, made over a three-year period, are now being analyzed for the purpose of defining the breeding season and seasonal changes in food selection. This fish is one of the most widespread and important predators on larvae in Florida's salt marshes.

The study of fish movements in and about marshes was deferred in order to exploit the remarkable discovery mentioned next.

Local populations of the minnow, *Rivulus marmoratus*, were found to consist predominantly of hermaphrodites with active ovotestes, i.e., functional male and female gonads. Fertilization is internal, and eggs are laid in various stages of embryological development. Five successive generations have been obtained through natural self-fertilization. Other fundamental data secured on this fish concern hereditary homogeneity and daily rhythms of self-fertilization and egg-laying. It is suspected that this fish may be an important predator on crab-hole mosquitoes, and it may be possible to develop it into an effective control for cistern mosquitoes. Its extraordinary reproductive behavior and ease of culture raises the possibility that it will become a classical laboratory animal for a wide range of biological and medical studies.

Mosquito Sampling

Reliable methods for estimating mosquito populations are essential to mosquito control. Florida's 67 mosquito species show a variety of responses to sampling methods. Biting annoyance, as reflected in people's complaints to mosquito control headquarters, may be a reliable index of density for some species of mosquito but it is very poor for others, in-

cluding several potential carriers of disease. The same applies to the commonly used light trap. The ERC mosquito-sampling study, under Mr. W. L. Bidlingmayer, is looking into both attractant (light, sound, odors) and non-attractant (suction, truck-mounted funnels) sampling methods in order to establish the best method to use against any particular mosquito species and to learn how to interpret collections of any species in terms of actual populations.

The study was carried on in the same rigidly controlled manner through this second year of the investigation. Again the work was performed with identical comparison procedures in Jackson, Sarasota and Indian River Counties; this distribution assures that all Florida's major mosquito pests are given the same study treatment. The thousands of collections are processed (identification, counting, sexing, etc.) continuously at the ERC. Most of 1962 will be devoted to a thorough statistical analysis of these data. It will be the last year of Mr. Bidlingmayer's NIH grant for this project.

From June to October, the 48-foot cage was occupied by a succession of synchronous broods of salt-marsh mosquitoes, at about seven to ten day intervals. A technique was developed for accurately measuring the natural mortality of these broods on a day-to-day basis. The summer's studies with these caged broods dealt mostly with responses to light traps as they varied with age and physiological state of the mosquitoes.

Midge Studies

The ERC's study of the "blind mosquito" problem about Florida lakes continued in 1961. The insects are Chironomid midges, mostly of the species *Glyptotendipes tendipes*. The larval worms live in the bottoms of lakes and the short-lived adults keep emerging out of the water most of the year. These midges do not bite; they are an annoyance purely because of their vast numbers.

The productivity studies of J. L. Yount, Ph.D., on various lakes in the Winter Haven area have shown that those lakes receiving sewage (treated or not) and industrial and agricultural fertilizer run-off are among the world's most highly productive lakes, i.e., they produce among the highest known quantities of living tissue, plant and animal, per unit area. This information is arrived at through continuous measurement of oxygen production and respiration in the lakes. Those lakes which do not receive quantities of wastes are, conversely, relatively very low producers. Overproduction of organic matter (hypereutrophism) is directly related to the overproduction of midges. Dr. Yount has an NIH grant to test the feasibility of reducing both overall productivity and midge production by artificially aerating the lakes.

Productivity studies constituted a major part of the year's research. Another important project was the aeration experiment on Lake Buckeye. Three small aerators and some thousands of feet of plastic tubing were used. Technical problems prevented ideal aeration, but the system successfully overturned (water at bottom same physically and chemically

as water at top) and aerated the lake, although not very efficiently. There were no detectable changes in the midge larval population during the experiment, but any such changes would not be expected for one or two years. A large compressor was obtained which will be placed on a pontoon boat on Lake Cannon for extensive aeration of this large lake. The City of Winter Haven and Polk County have helped greatly by furnishing airplane wing tanks, the pontoon boat and equipment for digging experimental pools.

Studies on the biology of midges and the limnology of the lakes continued through the year. A laboratory trailer was acquired for use at the field station on Lake Lulu. An apparatus, the oxytester, has been ordered to permit rapid and thorough studies of the limnology (oxygen, acidity, temperature, etc.) of the lakes.

Salt-marsh Wildlife

In July the ERC entered a contract with the U. S. Fish and Wildlife Service to study the wildlife potential of salt marshes before and after impounding for mosquito and sand fly control. The study will take three years and most of the field work is being done by a graduate student at the University of Florida. It is hoped that the many thousands of acres of salt marsh in Florida can eventually be managed for maximum production and utilization of fish and wildlife while still retaining the benefits of mosquito and sand fly control.

PHYSIOLOGY SECTION

This section concerns itself with those biological functions in biting insects which require better understanding before the facts of their life history and behavior can be fitted together into a more satisfactory picture. Under A. O. Lea, Ph.D., the section is currently investigating phenomena of nutrition, growth and reproduction.

Endocrine Studies

Early in the year Dr. Lea completed his tenure as NIH Special Research Fellow at the Royal Veterinary and Agricultural College in Copenhagen. His studies were on the relationship of diet and the role of hormones (endocrinology) in the reproductive cycle of a blowfly. Upon returning to ERC he spent several months analyzing data collected and preparing a paper based on them, which was presented at the Third International Conference on Neurosecretion at Bristol, England.

The techniques learned and the experience gained from these studies are now being applied to a similar study of the hormonal control of reproduction in mosquitoes. Operations have been devised for removing the corpora allata, which are endocrine glands in the neck of the mosquito. This is making possible a study of the role of these organs in egg development in blood-fed as well as in autogenous mosquitoes, i.e., those which can develop eggs without a blood meal.

Autogeny

In most of Florida's important mosquito species the female must get a blood meal to mature her eggs. When it was first observed, in 1958, that a certain proportion of *Aedes taeniorhynchus* females could mature a first egg batch without blood, i.e., were autogenous, the implications of the finding were explored. It was decided that a thorough study of this phenomenon was needed and that it was bound to yield a great deal of information on the role of blood in the female diet, on feeding or biting habits, on dispersal and on many other behavior traits. Dr. Lea soon obtained an NIH grant to pursue such a study.

During 1961 several new records of autogenous reproduction were found among species of Florida mosquitoes. Also a study of the role of larval and adult diets in the development, by selection, of an autogenous strain of the yellow-fever mosquito, *Aedes aegypti*, was initiated.

Laboratory colonies of autogenous *Aedes taeniorhynchus* are now in the 22nd and 23rd generations, but efforts to produce a completely autogenous strain of this species have been unsuccessful. Additional field collections have been made and rigid rearing conditions established for analyzing the potential rate of autogeny throughout coastal Florida. The remarkable decrease of autogeny proceeding northward from the Florida Keys to north Florida persists.

In the field experiment on migratory exodus described above under Ethology, several techniques for recapturing the migrating adults alive were tested. Captured females could then be held in the laboratory, without access to blood, and the rate of autogeny determined among the migrants, to compare with the rate among the mosquitoes staying behind. These studies will be continued in 1962.

Biochemical Studies

E. Van Handel, Ph.D., has continued his studies on the metabolism of lipids (fatty compounds) in mosquitoes. A remarkable sexual difference was discovered, namely, female mosquitoes, in contrast to males, synthesize triglycerides when fed glucose or sucrose, i.e., they convert sugars into fat reserves. After a week of free feeding the quantity of these triglycerides in the female mosquito may be 50 times greater than in the male also feeding freely. The longevity of both sexes after feeding on measured quantities of sugar has been determined. Analysis has shown that polyunsaturated fatty acids are not present in the newly synthesized triglycerides. The role of phospholipids in the maturation of the adult mosquito has also been under investigation. A note was published (see articles published at the end of this volume), and drew a great deal of attention, suggesting that mosquitoes constitute excellent study animals for *in vivo* studies of fat synthesis, a problem of prime importance to medical research, especially in the area of atherosclerosis, the leading precursor of heart and circulatory disease in man.

The thorough understanding of the physiology of lipid synthesis from sugar (nectar, in nature) will provide a solid foundation for pro-

posed ERC studies on the expenditure of food reserves, especially during flight and in egg maturation, as well as for future behavior studies on cycles of sugar and blood feeding.

Reproduction

In addition to cooperating in the above biochemical studies by supervising the rearing and feeding of the biological material to be analyzed, Dr. Lum, has continued his investigation of reproduction in Florida mosquitoes. Studies on the insemination and fertilization processes have been continued, including studies of sperm behavior in mosquitoes mated through artificial means. Along with these problems, comparative studies were made on sexually sterile hybrids obtained by crossing *Aedes taeniorhynchus* and *Aedes sollicitans*, the two salt-marsh mosquitoes occurring side by side throughout Florida.

Growth Studies

It has become increasingly clear to ERC researchers that the conditions under which mosquito larvae develop, especially food, temperature and crowding conditions, have a very great influence on the condition of the resulting adults at emergence. The dispersal characteristics, feeding habits, length of life and many other features of the mosquito adult brood are definitely established by these conditions the larvae must contend with. This is the sort of thing which lends itself to experimentation with good expectation of useful knowledge.

In 1961 preliminary studies were started on the growth and development in the immature stages of *Aedes taeniorhynchus* at various temperatures. The growth rate of larvae, the pupation rhythm (see above, under Ethology), and the adult emergence rhythm were studied. Comparative data were gathered on *Aedes sollicitans* and *Aedes aegypti*.

To expedite these studies, Dr. Lum prepared and submitted to NIH a grant research proposal for a five-year program, to start in 1962. This was approved. It will be a study of adult characteristics at emergence, such as size, weight, food reserves, reproductive potential and flight potential, as they may be related to conditions of crowding, food availability and temperature during the larval growth period. Special laboratory and constant temperature rooms will be equipped and allocated to these studies.

MISCELLANEOUS ACTIVITIES

The taxonomy laboratory, under Mrs. Nina Branch, continued in 1961 to serve all research sections of the ERC by making thousands of identifications and performing hundreds of mosquito autopsies. Studies of anatomical changes in adults related to age were continued, with particular attention given ovaries, stomach, and muscles. Among the tasks requiring more time and effort were the ovarian examinations of mosquitoes from studies in the 48-foot cage (see under Ecology, Mosquito Sampling) and the training of workers making special mosquito

collections for virus encephalitis studies by Nathan Schneider, Ph.D. of the Bureau of Laboratories.

The ERC library continued its normal service to staff members: book purchases, journal receipts and loan recording. The load of interlibrary loaning increased considerably during the year and is becoming the library's most urgent function as the demands for literature research increase space. Loans from libraries all over the United States can usually be secured in a matter of a few days and are indispensable to ERC researchers.

The ERC machine shop was kept very busy during 1961 in building research apparatus for use in field and in laboratory and in equipping several new and old laboratory rooms with new or modified cabinet work.

FLOYD H. DeCAMP, D.D.S.
Director

This bureau is charged with the responsibility of protecting and promoting the dental health of all citizens of the state. Such a program, to be successful, must be coordinated with all other general official health agencies on state and local level, and also with health programs of unofficial agencies and those sponsored by civic groups.

Development of the various programs continued this year on an accelerated basis. This was not due to the fact that additional funds were available to the bureau on the state level. The statewide expansion and growth of dental programs was attributed in a large measure to the fact that county health departments throughout the state became more acutely aware of the dental needs locally. They assumed ever increasing responsibilities in the field of good dental public health programs as an integral part of their long range generalized planning.

One of the significant accomplishments this year has been the determination, through several thousand carefully made dental inspections by the staff of the bureau, that the incidence of dental decay and other diseases of the oral cavity have not been reduced materially except in the areas having fluoride in the community water supply. In these areas having either natural or controlled fluoridation, the decay rate has been markedly reduced in those individuals who have consumed the fluoride bearing water from birth.

EDUCATION

Emphasis in 1961 was again placed on education of the child and parent through the teacher in the school. The health educator, the bureau's newly employed dental hygienist, along with the public health nurses, gave a team approach to the program in the schools, and continued evaluation of the child's routine care and health education.

The health educator, in planning with school officials and civic leaders for the visits of the white and Negro mobile dental clinics, was able to arouse interest and encourage health education in some groups that previously had thought that correction by dentists was the only solution to their children's present and future dental health problems.

For the third year, the health educator participated as State Board of Health leader for the Negro groups of the Teachers Project held yearly as a joint project of the State Department of Education and the State Board of Health. Need and desire for school and community dental programs was cited by both Negro and white teachers enrolled in the courses.

Visits were made to new junior colleges, colleges and university health classes to present the latest in dental health facts and information on the availability of approved dental health teaching materials. Approximately 65,000 pieces of literature and numerous audio-visual aids were used in this and other phases of the dental education program.

Again the bureau participated in the 4H Short Course at Florida State University. As follow-up to this course, the health educator visited the 4H Club leader in each county. Frequent comments by the leaders indicated that routine examinations and preventive dental care were becoming more common in 4H Club rural families.

An increased number of preceptorship dental programs established in county health departments necessitated more orientation visits with the preceptee concerning implication of the health education aspects of his dental program, as well as the availability of health education materials to be used in all phases of his work.

The value and appeal of the health education program can be evaluated in part by the ever increasing funds being expanded by school officials, county health unit directors, civic leaders and members of the dental profession themselves.

SCHOLARSHIP PROGRAM

(See Scholarships for Professional Education elsewhere in this Report.)

A scholarship recipient may receive as much as \$1000 a year for as many as four years. Upon graduation, his obligation to the state is repaid by practicing in an "area of need" (where there are few or no dentists) for 12 months for each \$1000 received. An amending act of the 1961 Legislature affecting the Dental Scholarship Law, reduced the number of months of compensatory practice from 15 months for each \$1000 received to 12 months for each \$1000. In all, 72 scholarships have been granted with one cancellation before becoming effective. A summary of the remaining 71 as follows:

*Currently in dental schools	37
Total graduates to date	31
Failed to complete studies	2
**Undergraduate repaying 1 year of scholarship	1
	<hr/>
	71
Disposition of graduates:	
Placed and serving in "areas of need"	20
Currently serving in armed services	5
Refused placement: repaying scholarship	2
Refused placement: repaid scholarship in full	3
Served Florida preceptorship, to fulfill obligation on licensure	1
	<hr/>
	31
*Includes one student who has received all scholarship payments but is repeating the senior year at his own expense.	
**Student declined remainder of scholarship after receiving one year. He is continuing in school but repaying scholarship funds received.	

LACTOBACILLI LABORATORY SERVICE

This important phase of the dental program was initiated in mid-1955, and is operated jointly with the Bureau of Laboratories. There

has been a continuous increase of interest in the program since its inception. The number of saliva specimens submitted for analysis in 1961 was 3693, an increase of more than 1000 over the number submitted the previous year.

To assist dentists in planning caries-control diets for their patients, 6403 pieces of informational literature were distributed from this bureau.

PRECEPTORSHIP PROGRAM

This program was established in 1957 for the primary purpose of enabling county health departments to secure dentists to staff their dental clinics, and has proved most successful. In addition, since most of the preceptorship dentists remain in Florida to do private practice after licensure, it has resulted in bringing many excellent young dentists to the state.

Preceptorship dentists receive supervision from a local preceptorship committee of licensed dentists, a dental advisor from this bureau and from the health officers in their respective counties.

In 1961, a postgraduate course in pedodontics and dental public health was given for the preceptorship dentists. This course was sponsored jointly by this bureau; Florida Unit of the American Society of Dentistry for Children and the Postgraduate Committee of the State Dental Society. The first days of the program were held at the University of Florida and the final two days were held at the State Board of Health. In addition to the scientific and technical portions of the program, the preceptorship dentists received orientation concerning the many functions of, and facilities available to them through the State Board of Health.

Twelve counties utilized the services of a preceptorship dentist for a portion or all of 1961. These counties were: Alachua, Dade, Duval, Hillsborough, Lake, Broward, Orange, Palm Beach, Pinellas, Polk, St. Johns and Volusia. During the year, regular public health dentists served in Dade, Pinellas, Polk, Orange and Broward Counties for all or a portion of the year. In Broward and Polk Counties, the preceptorship dentists elected to remain as regular public health dentists after licensure in August.

In late 1961, plans were being processed to establish five additional dental preceptorship programs in county health departments. These plans were completed in three county units and dentists were employed to begin work in the early days of 1962. The counties involved were: Marion, Santa Rosa, and the tri-county health unit of Glades, Hendry and Highlands. Also, the Putnam-Flagler County Health Unit was able to secure a preceptorship dentist to operate the facilities existent in that department.

Many inquiries and a large number of applications for preceptorship positions were received. Of the applications submitted, 22 were approved by the State Board of Dental Examiners. Of these, 16 were placed—14 in county health departments and two in this bureau. The remain-

ing approved applicants were unable to accept assignments because of military duty, acceptance of other public health positions or for personal reasons.

The preceptorship contract year is from September 1 to August 31 of the next year. There are exceptions made to this as circumstances dictate.

A summary of the major dental activities of the various county health departments is given in Table 7.

MOBILE DENTAL CLINICS

Two mobile dental clinics are maintained for the purpose of providing remedial dental care to underprivileged elementary school children where there are few or no practicing dentists. Both units are staffed by preceptorship dentists who operate under the supervision of this bureau and by Preceptorship Committees in the county or district where the mobile units may be assigned.

One clinic operated eight months and the other 11 months during the year. In all, 46 schools in 19 counties were served. A summary of the services given follows:

School dental inspections	2870
New patients	3118
Repeat patients	1303
Fillings (all types)	2921
Extractions	4123
Miscellaneous treatment	237
Talks given to school and civic groups	31
Approximate audience	2004
Pamphlets distributed	1118

FLUORIDATION

In August 1961, Ormond Beach, a city of approximately 9000 population, began adding fluoride to its water supply. This action was a direct result of a successful referendum which had been held previously. With this addition, nine community water supplies in this state are now using fluoridation. This includes Miami, which furnishes water to 11 additional suburban cities including Miami Beach and Coral Gables, and, Belle Glade which furnishes water to two suburban towns. A total of 22 cities, therefore, are using water supplies which contain controlled fluoridation. The estimated 1960 population served is 674,710.

During 1961, in two additional Florida cities, the city councils voted unanimously to add fluoride to their water. These installations will be made early in 1962.

In Florida, there are approximately 25 additional cities and communities with an estimated population of 263,500 which have fluoride in their water supplies naturally in about the correct amount needed to control dental decay. These cities include Jacksonville and Sarasota. At the present time, 938,210 persons are using a water supply containing about the correct amount of fluoride.

In December 1961, a referendum was held in Homestead. This was lost by less than 30 votes. While it is disappointing to lose a referendum, the trends in Florida are indicating that we are gaining ground in this respect. On previous occasions, the opponents, when they did defeat fluoridation, always won by a very much larger majority.

In December 1961, this bureau conducted the Fifth Annual Dental Health Workshop at Tampa. Sixty-two dentists and dental public health workers attended this meeting. The objectives of this workshop were to familiarize the dentists of Florida with the problems associated with: existing and proposed state and federal legislation affecting dentistry in Florida; the utilization of social and behavioral sciences to assist in the solution of dental problems; the present status and future possibilities of dental public health in Florida; and the role of the State Department of Public Welfare in a comprehensive medical and dental care program for recipients of public assistance of all ages.

CARE FOR THE AGED

The bureau this year has cooperated with the State Dental Society's Committee on Dental Care for the Aged. This group through the various county dental societies aided in the establishment of a program to conduct dental examinations for these persons in selected nursing homes and homes for the aged in approximately 20 counties. This survey when completed will give much data on the present dental condition of this group: dental needs, financial status, age of these persons and their ability to avail themselves of needed dental treatment through private dental offices. It will aid the State Dental Society in establishing a dental care program for underprivileged elderly persons should these studies reveal such a need.

BUREAU OF FINANCE AND ACCOUNTS

FRED B. RAGLAND, B.S.
Director

PAUL R. TIDWELL, B.B.A.
Assistant Director

This bureau has major responsibility for the business and financial management of the agency, and includes: accounting, budgeting, purchasing, property control, duplicating services, mail, shipping, receiving, automobile control and assignment, and buildings and grounds maintenance. The business and financial management requires a close working relationship with the State Board of Health program directors in planning maximum utilization of funds that have been provided. This means sound budget preparation of the various health programs designed to cover a future period of time. Once the funds are provided and properly budgeted, then a logical system of accounting for these funds and issuance of reports concerning their expenditure is necessary. This, along with the dissemination of proper budget control information, is accomplished by this bureau. Sometimes this becomes quite involved due to the complexity of the various sources of funds: federal, state, county, private, etc. Each of these sources bears its own set of rules, laws and regulations as to the administration of expenditure of the funds.

The fiscal year ended June 30, 1961, was the second year of the 1959-61 state biennium for which the 1959 Legislature made available to the agency state funds through the General Appropriation Act. These appropriations were generally based upon maintaining present programs at the same level with no additional funds for new programs or for expansion.

Overall, approximately \$18,700,000 was spent during the fiscal year ended June 30, 1961. This represented almost two and a quarter million dollars more than was spent the previous fiscal year. In two instances there was a notable increase. The indigent hospitalization program increased about one and a quarter million dollars to a little over four and a quarter million dollars for 1961 as a result of the state's greater use of federal financial participation for those on public assistance rolls. The basic expenditures through county health departments increased almost three-quarters of a million dollars to slightly over eight million dollars for 1961, due primarily to more funds from local sources.

The 1961 State Legislature appropriated \$16,865,000 to the State Board of Health for the biennium July 1, 1961 to June 30, 1963. This was approximately a million dollar increase over the 1959-61 biennium. This increase was to provide generally for 25 new state level positions, salary increases of approximately five per cent, a modest addition for purchase and distribution of insulin, increased support of this agency's share of the Florida Merit System operation, travel for new positions, microfilming of vital records, and finally, a small increase for normal

overhead costs such as telephone, postage, utilities, repairs, etc. Other large areas of financial support of responsibilities carried out by the State Board of Health from state-appropriated funds remained approximately at the same level as in the previous biennium. These areas include Air Pollution Control, the Council on Training and Research in Mental Health, Hospital Service for the Indigent, grants to county health units, polio and combined vaccines, medical and dental scholarships, and grants to localities for mosquito control.

At the close of the fiscal year June 30, 1961, the number of state-owned and operated automobiles was 74. These were driven approximately 1,190,000 miles during the year in carrying out travel responsibilities. In addition, the agency owned 42 trucks or special purpose vehicles such as: mobile tuberculosis, dental and engineering laboratories. These units traveled approximately 339,000 miles during the year. Assignment and use of all vehicles is continually reviewed to insure that they are used in the most effective and economical manner in carrying out the agency travel responsibilities. During 1961, old automobiles were traded and 20 new units acquired.

The bureau director and his staff continue to give assistance to the overall planning of the health department activities, particularly in the area of coordinating financial plans. The director serves as a member of the agency Budget Committee and continued emphasis has been placed upon keeping bureau and division directors advised as to budgeted programs, and expenditures from such budgets, progressively, during the year.

For sometime it has been recognized that there existed a need for a manual of business management procedures to guide county health departments. During the year such a manual was prepared and distributed. As a result of this manual and continued emphasis upon up-to-date fiscal information being provided county health departments, there should be considerable improvement in the financial records in the county health department area of responsibility.

PURCHASING AND PROPERTY

The purchasing section carries out the responsibility of the agency's need for supplies, equipment and services. Purchases made are subject to rules and regulations issued by the State Purchasing Commission, such as obtaining bids, advertising for bids under certain conditions, printing regulations, etc. The property division of this section carries out the responsibility of recording, marking and inventorying of all property purchased (desks, chairs, automobiles, etc.). The State Statutes prescribe certain records which must be maintained, and the frequency of physical inventories. The bureaus and divisions of the agency referred 2343 purchase requisitions to the office of the purchasing agent for equipment, supplies and services for the year 1961. In processing these requisitions, the purchasing office issued 3424 separate purchase orders to the various vendors and suppliers and the total amount of these combined purchase orders was approximately \$1,050,000. County health departments normal-

ly handle purchases locally within the organizational framework of the local department; however, they must conform to the State Statutes by obtaining bids and advertising for bids as required, and also follow good business practices in procuring materials through competitive bids. The purchasing agent at the State Board of Health assists the county health departments wherever possible with their purchasing requirements.

PROPERTY CONTROL

Dollar value increases were notable in 1961 in most property classifications. Two new buildings at the Entomological Research Center at Vero Beach were completed and occupied in 1961 for a combined additional value of \$64,088 to real property of the State Board of Health. . . . As of June 30, 1961 tangible property valuation amounted to \$825,601. This property class, which consists of furniture and other equipment shows a substantial increase over the 1960 values. . . . Automotive equipment and trailer valuations also show an increase in 1961 over 1960. . . . Book and film valuations remained about the same in 1961.

The following Plant Ledger reflects the State Board of Health Property picture as of June 30, 1961 and is supported by IBM records:

Real property	\$2,678,188
Furniture and equipment (tangible)	825,601
Automotive equipment and trailers	233,573
Books and films	210,012

TOTAL.....\$3,947,374

During the year 1961 all county health departments were notified of the enactment of an amendment to Chapter 274, Florida Statutes, adding Section 274.11, which provides for the title of all property purchased by county health departments to be vested in the Board of County Commissioners of the county affected; and amending Section 381.211, Florida Statutes, authorizing the State Board of Health to transfer title to certain property located within the county health department to the Board of County Commissioners of the county where said property is located or principally used. Each county affected is to be accountable for all such property and the provisions of the bill become effective immediately upon becoming a law.

Annual physical inventories of property assigned to departmental locations, the recording of transfer of items between locations, and the recording of new additions and deletions were accomplished as prescribed by the appropriate rules and regulations pertaining to property accountability.

INSURANCE

Fire insurance on buildings and grounds is carried in the State Fire Insurance Fund under the supervision of the State Fire Insurance Commissioner. Coverage on boilers and heating equipment is carried in a master policy supervised in the office by the State Fire Insurance Com-

missioner. Steps were taken during 1961 to provide for closer cooperation in these matters of insurance with the above Commissioner. One of the chief areas in which closer coordination will be maintained is that of changes in coverages, new accounts and discontinued accounts that may occur. All such requests for adjustments in the future will be supported with itemized inventory listings with dollar totals. The Commissioner's office will also be furnished with similar listings each year for each building included in the State Board of Health fire insurance schedule.

Other major insurance coverage purchased by the Board through regular agents includes: (1) money and securities, broad form, loss inside of premises and loss outside of premises; (2) position schedule bond for narcotic inspectors; (3) public employees honesty blanket position bond; (4) motor truck cargo floater policy, covering surgical and scientific equipment in various mobile units and laboratories; (5) fleet state automobile coverage, bodily injury, property damage, comprehensive and medical benefits (no collision coverage included since the Board acts as self insurer); (6) workmen's compensation.

BUILDINGS AND GROUNDS

The responsibility for maintenance of buildings and grounds becomes increasingly important with the growth of the agency. The superintendent of building and grounds, and his maintenance staff, is capable of performing the general maintenance needs of the agency. During 1961 continued, intensive emphasis was placed upon proper maintenance and improvement of the mechanical, laboratory and electrical equipment within the plant. In addition, improvement of the grounds was consummated. Records of all the agency cars and repairs to the Jacksonville area cars have been closely supervised during the year. Seven hundred and eighty-four work requisitions were handled by the maintenance department. Some of the major accomplishments included: (1) paving of parking lot approaches; (2) paving sidewalk and installing curb on Pearl Street side of Porter Building; (3) construction of one large and two small planters in the parking area; (4) modernization of electrical circuitry in the Pearl Street building; (5) major interior alteration of space occupied by the audio-visual library and Bureau of Special Health Services; (6) design and installation of more adequate outdoor lighting; (7) modernization of maintenance shop power tool equipment; (8) continuous painting and water-proofing.

A security force directly responsible to the superintendent of buildings and grounds is on duty at all times except during regular office hours. Security officers are responsible for routine check on all mechanical equipment, entrances, vehicles left on parking lot, and general protection of all property and equipment.

SHIPPING AND RECEIVING

This section is directly responsible to the superintendent of buildings and grounds. The bulk of shipping includes drugs, supplies and forms to county health departments, and containers and laboratory supplies to

regional laboratories and state tuberculosis hospitals. Another function is to receive all incoming shipments and complete receiving reports for such shipments. The section also aids the central laboratory in the preparation of laboratory mailing containers.

DUPLICATING

The Duplicating Department continues to operate efficiently and economically, being a valuable asset to the organization. No new equipment was added during the year. The section continues to record job numbers, total runs, number of forms reproduced and costs.

During the year each job requested of the department was by separate written requisition. There were 1864 requisitions for mimeograph, multilith or multigraph services. These jobs required 5189 separate forms when reproduced; the total impressions were 8,352,304. This is a noteworthy accomplishment, in view of limited staffing. In addition, the bindery section of the department handled paper cutting, padding, holes drilled, pamphlets stitched, folding, perforating and collating.

Ditto Room

The addressograph files increased during the year to approximately 40,000 plates. The *Florida Health Notes* file, totaling over 15,000 plates, is continually reviewed and kept up-to-date. The addressograph operator assists and gives advice to any workers using the ditto, robotyper, or multiple copy machines.

FISCAL SECTION

The essential function of this section is the verification of the legality and propriety of payments under the various programs of the agency, processing all bills and vouchers for payment, the financial record keeping and preparation of required financial reports.

The financial transactions of the State Board of Health for the fiscal year ended June 30, 1961 as reflected by the records of the bureau are presented in a condensed form at the end of this section.

A detailed financial report for the fiscal year ended June 30, 1961, has been prepared and distributed to the Governor, members of the Board of Health, and all bureaus, divisions and county health departments.

The funds received (or appropriated) for the fiscal year ended June 30, 1961, were from the following sources:

State appropriations and funds.....	\$ 8,619,531.03	44%
From local agencies for county health departments	5,851,410.75	30%
From federal grants-in-aid	1,689,209.69	8%
From research grants	474,823.07	2%
From Hospital Service for the Indigent:		
Local sources*	323,507.87	1%
State Department of Public Welfare.....	2,918,317.81	15%
	<u>\$19,876,800.22</u>	<u>100%</u>

*These funds deposited with and disbursed through the State Treasury. Does not include \$2,401,255 disbursed locally.

The operating and capital expenditures by the State Board of Health were for:

Personal services (salaries and professional fees)	\$ 9,536,523.30	51%
Contractual services (repairs, utilities, travel expense, hospital program)	6,109,509.07	32%
Materials and supplies (office, medical, Laboratory, mosquito control, educational)	1,059,753.73	6%
Current charges (rents, insurance, merit System costs, registrar fees)	245,568.96	1%
Capital outlays (equipment and fixed assets)	333,956.26	2%
Grants to counties and Mosquito Control Districts	1,248,892.10	7%
Miscellaneous (education aids and subsidies)	164,960.78	1%
TOTAL	<u>\$18,699,164.20</u>	<u>100%</u>

In addition to funds reported in the annual financial report and summarized above, certain other funds and services were made available by the U. S. Public Health Service to the activities of the Board but were not paid directly to the State Board of Health. They include:

Value of Public Health Service personnel on loan to the Board in preventable disease programs.....	\$135,256.55
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Fiscal operation followed a budget plan of 154 departmental budgets. These budgets were occasionally revised to meet changing situations.

SUMMARY OF RECEIPTS AND DISBURSEMENTS AND BALANCES FOR THE FISCAL YEAR ENDED JUNE 30, 1961

RECEIPTS

FROM STATE FUNDS

From State Appropriations—Operations:	
General Public Health.....	\$ 2,154,231.77
Mental Health.....	512,719.00
Cancer Control.....	60,015.00
Consolidated Mosquito Control.....	1,991,891.98
County Health Units.....	1,660,000.00
Medical Students Scholarships.....	40,000.00
Dental Students Scholarships.....	40,000.00
Hospital Service for the Indigent.....	1,710,933.00
Mental Health Council.....	160,135.00
Air Pollution.....	50,680.00
Purchase of Salk Vaccine.....	100,000.00
Other:	
Medical Laboratory Control.....	1,100.00
Bedding Inspection Administration.....	97,392.78
Advisory Hospital Council.....	1,625.00

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Drug Store Inspection.....	14,930.00
Drugs, Devices and Cosmetics.....	23,877.50
Total State Funds.....	<u>\$ 8,619,531.03</u>

FROM FEDERAL GRANTS-IN-AID

Public Health Service:	
General Health.....	\$ 466,510.00
Venereal Disease.....	79,814.00
Tuberculosis Control.....	94,298.00
Heart Disease.....	92,926.10
Cancer Control.....	88,319.00
Mental Health.....	153,400.00
Water Pollution.....	63,048.00
Cuban Health Services.....	86,320.00
Children's Bureau:	
Maternal and Child Health.....	564,574.59
Total Federal Grant-In-Aid.....	<u>\$ 1,689,209.69</u>

FROM GRANTS AND DONATIONS..... \$ 474,823.07FROM LOCAL AGENCIES FOR COUNTY HEALTH UNITS \$ 5,851,410.75

FROM HOSPITAL SERVICE FOR THE INDIGENT

Local Sources.....	\$ 323,507.87
State Welfare Board.....	2,918,317.81
Total from Hospital Service for Indigents.....	<u>\$ 3,241,825.68</u>
TOTAL RECEIPTS.....	<u>\$19,876,800.22</u>
Balance July 1, 1960, \$2,572,250.05 (Less expired appropriations of \$508.48).....	\$ 2,571,741.57
TOTAL RECEIPTS AND BALANCES.....	<u>\$22,448,541.79</u>

DISBURSEMENTS

OPERATING EXPENSES

Personal Services:	
Salaries.....	\$ 9,307,697.55
Professional Fees and Consultant Services.....	228,825.75
Contractual Services:	
Travel Expense, including subsistence and lodging.....	1,136,958.06
Communication and Transportation of Things.....	272,533.50
Utilities.....	116,070.02
Repairs and Maintenance.....	107,002.97
General Printing and Reproduction Services.....	66,536.06
Subsistence and Support of Persons.....	4,312,511.16
Other Contractual Services.....	97,897.30
Commodities:	
Bedding, Clothing and Other Textile Products.....	1,080.27
Building and Construction Materials and Supplies.....	13,145.59
Coal, Fuel Oil and Other Health Supplies.....	10,097.41
Educational, Medical, Scientific and Agricultural Materials and Supplies.....	755,500.90
Maintenance Materials and Supplies.....	69,369.63
Motor Fuel and Lubricants.....	47,264.22

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Office Materials and Supplies.....	158,705.17
Other Materials and Supplies.....	4,590.54
Current Charges:	
Insurance and Surety Bonds.....	49,377.62
Rental of Building and Equipment.....	104,455.92
Other Current Charges and Obligations.....	54,708.17
Merit System.....	37,027.25

TOTAL OPERATING EXPENSES..... \$16,951,355.06

CAPITAL EXPENSES

Books.....	\$ 5,441.29
Buildings and Fixed Equipment.....	77,775.52
Educational, Medical, Scientific and Agricultural Equipment.....	78,435.59
Motor Vehicles—Passenger.....	47,519.52
Motor Vehicles—Other.....	1,000.00
Office Furniture and Equipment.....	123,045.13
Other Structures and Improvements.....	739.21

Total Capital Expenses..... \$ 333,956.26

GRANTS, SUBSIDIES AND CONTRIBUTIONS

Grants to Counties and Mosquito Control Districts.....	\$ 1,248,892.10
Other Educational Aids and Subsidies.....	164,960.78

Total Grants, Subsidies and Contributions..... \$ 1,413,852.88TOTAL PROGRAM EXPENSES..... \$18,699,164.20

NON-OPERATING DISBURSEMENTS

Transfers.....	\$ 711,302.77
Refunds.....	17,718.25

Total Non-Operating Disbursements..... \$ 729,021.02TOTAL DISBURSEMENTS..... \$19,428,185.22BALANCE June 30, 1961..... \$ 3,020,356.57TOTAL DISBURSEMENTS AND BALANCES..... \$22,448,541.79

SCHEDULE OF EXPENSES BY PUBLIC HEALTH PROGRAM ACTIVITY

Health Services to Mothers, Infants, Preschool and School Children.....	\$ 2,953,280.00
Statewide Venereal Disease Control, Diagnosis and Referral of Infectious Venereal Disease Patients to Treatment Clinics —also Operation of Program.....	877,320.00
Mosquito and Pest Control Programs, Including Pest Control Law Enforcement.....	2,908,934.83
Indigent Hospitalization.....	4,293,552.28
Statewide Sanitary Engineering and Environment Sanitation.....	1,630,071.80
Statewide Tuberculosis Control, Xray Survey and Follow-up Work.....	887,880.00
Statewide Cancer Control Program.....	540,660.00
Mental Health Program.....	1,089,630.00
Statewide Narcotic, Drug, Medical Practice Law Enforcement.....	155,226.10
Radiological and Occupational Health (Including Air Pollution).....	121,302.57
Heart Disease Program.....	277,060.00
Other Health Programs and Administration.....	2,964,246.62
TOTAL EXPENSES.....	\$18,699,164.20

SCHEDULE OF EXPENSES BY FUNCTIONAL ACTIVITY

General Public Health (also includes Miscellaneous Health Activities and Training).....	\$ 1,240,457.73
Vital Statistics.....	210,039.07
Health Education.....	89,673.99
Sanitary Engineering.....	425,811.80
Entomology and Mosquito Control.....	2,106,094.73
Laboratories.....	621,329.33
Tuberculosis Control.....	177,916.88
Preventable Diseases (Excluding Tuberculosis Control).....	314,737.16
Mental Health.....	311,431.56
Narcotics.....	124,159.63
Maternal and Child Health.....	337,327.09
Hospital Service for the Indigent.....	4,293,552.28
Local Health Service.....	271,694.52
Chronic Diseases.....	146,537.44
County Health Units.....	8,028,400.99
TOTAL EXPENSES.....	\$18,699,164.20

TABLE 60
FUNDS RECEIVED BY COUNTY HEALTH UNITS FROM STATE BOARD OF HEALTH AND LOCAL SOURCES FOR THE FISCAL YEAR ENDED JUNE 30, 1961

	STATE BOARD OF HEALTH				LOCAL FUNDS				
	Total Funds	Total	State	State Mental Health	Federal	Total	Board of County Commissioners	Board of Public Instruction	Cities
Alachua.....	\$ 190,306	\$ 67,158	\$ 49,806	\$ 12,270	\$ 5,082	\$ 123,143	\$ 94,288	\$ 9,350	\$ 11,562
Baker.....	21,716	11,144	10,004	1,140	15,980	10,571	10,508		
Bay.....	97,805	53,891	29,794	8,117		43,914	43,263		
Bradford.....	36,022	15,003	16,003			20,019	12,096	5,600	2,200
Brevard.....	182,762	81,851	27,170	4,681	3,420	150,911	127,829	35,000	1,740
Broward.....	377,624	86,198	56,934	26,844		291,426	262,034		
Calhoun.....	20,204	9,768	9,768			10,436	9,600		
Charlotte.....	31,472	8,006	8,006			23,467	20,247		
Citrus.....	25,491	14,016	8,496	5,520		11,176	7,511	3,600	
Clay.....	43,835	20,273	20,273			23,562	20,890		2,400
Clay Building Fund.....	9,771					9,771	9,771		
Collier.....	57,869	21,516	17,976	3,540		36,453	26,075		
Columbia.....	39,732	18,717	18,717			21,015	20,767		
Dade.....	1,313,111	246,447	127,624	37,144	81,679	1,066,664	962,875		528
DeSoto.....	25,411	16,372	11,092	5,280		9,039	8,553		
Dixie.....	13,976	6,056	6,056			7,920	5,393	2,000	
Duval.....	211,803	104,590	42,750	48,709	13,131	107,213	74,657		6,960
Escambia.....	287,965	85,560	54,163	17,804	13,593	202,406	112,475		62,925
Flagler.....	13,891	7,635	7,635			6,256	6,221		
Franklin.....	29,122	13,919	8,399	5,520		15,203	15,140		
Gadsden.....	71,369	35,884	30,604	5,280		35,485	29,576		
Gilchrist.....	10,331	4,637	4,637			3,234	3,201	3,050	
Glades.....	12,942	3,974	3,974			8,968	8,963		
Gulf.....	29,614	13,791	13,791			15,823	12,726	3,000	
Hamilton.....	19,913	10,067	10,067			9,846	9,428		
Hardee.....	30,507	13,843	13,843			16,301	16,301		
Hardee Building Fund.....	4,126					4,126	4,126		
Henry.....	92,381	9,006	9,006			23,375	11,618		
Hernando.....	16,286	10,043	10,043			6,243	3,106	2,530	
Highlands.....	43,695	25,465	19,945	5,520		18,230	18,000		
Hillsborough Building Fund.....	14,753					14,753	14,753		
Hillsborough Building Fund.....	810,079	130,316	36,611	21,815	71,889	679,764	507,219		
Homes.....	11,378					11,378	11,378		
Indian River.....	26,316	11,540	11,540			18,776	6,733	7,000	
Jackson.....	68,864	18,630	13,899	4,791		35,164	25,374	3,000	4,125
		37,907	26,295	5,220	7,392	30,957	27,116	3,000	600

TABLE 60 (Continued)
FUNDS RECEIVED BY COUNTY HEALTH UNITS FROM STATE BOARD OF HEALTH AND
LOCAL SOURCES FOR THE FISCAL YEAR ENDED JUNE 30, 1961

	STATE BOARD OF HEALTH			LOCAL FUNDS				
	Total Funds	Total	State	State Mental Health	Federal	Total	Board of County Commissioners	Board of Public Instruction
Jefferson	\$ 30,566	\$ 10,084	\$ 10,084	\$.	\$.	\$ 20,482	\$ 5,000	\$ 4,000
Lafayette	13,759	5,751	5,751	. . . . .	. . . . .	8,008	8,000	1,500
Lake	97,644	36,274	36,274	. . . . .	. . . . .	61,370	58,747	2,105
Lee	77,007	30,773	25,493	5,280	8,541	46,234	45,677	. . . . .
Leon	168,361	78,582	42,608	22,483	. . . . .	94,779	71,896	8,600
Levy	81,549	13,379	13,379	. . . . .	. . . . .	18,170	11,736	5,600
Liberty	16,064	5,909	5,909	. . . . .	. . . . .	9,155	9,141	. . . . .
Madison	29,761	15,434	15,434	. . . . .	. . . . .	14,327	14,230	. . . . .
Manatee	118,352	47,607	31,507	15,700	. . . . .	70,725	63,812	8,000
Marion	86,155	38,547	28,727	4,820	. . . . .	52,608	32,963	750
Martin	82,107	13,009	13,009	. . . . .	4,800	19,098	18,220	6,000
Monroe	92,270	38,330	29,310	4,220	. . . . .	53,940	38,038	. . . . .
Nassau	62,174	28,332	20,845	3,457	. . . . .	38,342	36,015	. . . . .
Nesaw	70,622	27,618	22,698	4,920	. . . . .	48,004	36,015	. . . . .
Okaloosa	18,176	6,802	6,802	. . . . .	. . . . .	11,374	11,324	. . . . .
Okechobee	374,442	74,359	47,448	15,921	11,490	299,568	212,176	21,831
Orange	82,785	13,586	13,586	. . . . .	. . . . .	19,199	16,642	2,400
Osceola	400,815	104,354	67,209	24,980	12,165	296,461	189,700	29,700
Palm Beach	31,393	17,584	17,584	. . . . .	. . . . .	13,809	10,800	2,180
Pasco	760,806	110,510	79,742	25,488	5,280	650,296	504,249	. . . . .
Pinellas	368,022	97,742	61,817	29,040	17,385	270,280	222,204	. . . . .
Polk	49,339	24,351	24,351	. . . . .	. . . . .	25,088	23,199	. . . . .
Putnam	43,795	21,219	21,219	. . . . .	. . . . .	22,576	18,132	. . . . .
Santa Rosa	256,128	67,261	36,363	21,658	9,240	168,867	139,864	4,200
Seminole	75,402	28,532	28,532	5,040	. . . . .	46,850	20,522	4,000
St. Johns	50,564	18,000	18,000	. . . . .	. . . . .	32,564	23,822	10,084
St. Lucie	73,424	43,766	26,631	17,185	. . . . .	34,658	28,439	2,880
Sumter	21,694	12,677	12,677	. . . . .	. . . . .	9,017	8,574	. . . . .
Suwannee	30,556	16,744	15,744	. . . . .	. . . . .	14,812	14,699	. . . . .
Taylor	22,622	12,965	12,965	. . . . .	. . . . .	9,657	8,750	800
Union	17,403	11,229	11,229	. . . . .	. . . . .	6,174	6,143	. . . . .
Volusia	278,386	82,453	48,236	30,617	3,600	195,933	148,292	15,300
Wakulla	16,568	8,515	8,515	. . . . .	. . . . .	8,048	8,000	. . . . .
Walton	35,479	16,749	16,749	. . . . .	. . . . .	18,730	8,462	. . . . .
Washington	25,402	11,680	11,680	. . . . .	. . . . .	13,722	13,540	. . . . .
County Health Units								
State at Large	53,654	53,654	53,654					
TOTALS	\$8,282,906	\$2,393,601	\$1,660,000	\$448,934	\$284,667	\$5,839,305	\$4,637,842	\$241,885
								\$185,780
								\$773,798

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